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August

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AKS IAS Academy's - committed team has prepared this book following certain norms to ensure non-partisan treatment of the subject, a dedicated effort to help you prepare best to crack the Examinations. Explaining each and every detail required. This all-inclusive volume will facilitate the aspirants to amass a complete and detailed understanding of the concerned subject.

We wish you the best for your Test preparation!

M.S.Shashank
Director - AKS IAS Academy

*This book refrains from passing judgements on events and personalities of any period.

MSShashank
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1. Polity & Governance

1.1. Amendments in the Indian Stamp Act, 1899 and Rules

Context:

The Amendments in the Indian Stamp Act, 1899 brought through the Finance Act, 2019 and Rules made thereunder will come into effect from 1st July 2020.

Details:

- These amendments to the Act and Rules will enable states to collect stamp duty on securities market instruments at one place by one agency (through Stock Exchange or Clearing Corporation authorized by it or by the Depository) on one Instrument.
- This was done in order to facilitate ease of doing business and to bring in uniformity of the stamp duty on securities across States and thereby build a pan-India securities market.
- A mechanism for appropriately sharing the stamp duty with relevant State Governments has also been developed which is based on the state of domicile of the buyer.
- **The need for the amendments:**
    - The present system of collection of stamp duty on securities market transactions led to multiple rates for the same instrument, resulting in jurisdictional disputes and multiple incidences of duty, thereby raising the transaction costs in the securities market and hurting capital formation.
- **Potential impact:**
    - This rationalized and harmonized system through a centralized collection mechanism is expected to ensure minimized cost of collection and enhance revenue productivity.
    - Further, this system will help develop equity markets and equity culture across the length and breadth of the country, ushering in balanced regional development.

1.2. No postal ballot facility for voters above 65: EC

Context

The Election Commission said that the postal ballot facility for electors above the age of 65 in the Bihar Assembly elections would not be implemented. The poll body said the option of postal ballots would be available to electors over 80 years of age, persons with disabilities, essential service workers and those infected with COVID-19 or suspected to be.

Details:

- Until October 2019, the provision of voting through the postal ballot was available to armed forces personnel and those assigned poll duty.
- In October 2019, however, the Union Government accepted the poll panel's recommendation and the Law Ministry made amendments by allowing voters who are 80 years of age and above or those with disabilities to use the postal ballot for voting during parliamentary and assembly elections.
- The assembly elections to Bihar's neighbouring state, Jharkhand, held in November-December, were the first that saw the provision being implemented.

What is postal voting?

- A restricted set of voters can exercise postal voting. Through this facility, a voter can cast her vote remotely by recording her preference on the ballot paper and sending it back to the election officer before counting.

Who can avail this facility?

- Members of the armed forces like the Army, Navy and Air Force, members of the armed police force of a state (serving outside the state), government employees posted outside India and their spouses are entitled to vote only by post. In other words, they can't vote in person. Voters under preventive detention can also vote only by post.
- Special voters such as the President of India, Vice President, Governors, Union Cabinet ministers, Speaker of the House and government officers on poll duty have the option to vote by post. But they have to apply through a prescribed form to avail this facility.
- Recently, the Law Ministry, at the Election Commission's behest, introduced a new category of 'absentee voters', who can now also opt for postal voting. These are voters employed in essential services and unable to cast their vote due to their service conditions. Currently, officials of the Delhi Metro Rail Corporation, Northern Railway (Passenger and Freight) Services and media persons are notified as absentee voters.

1.3. 'Judicial review can't be done prior to Speaker's decision'

Context:

- The judgment is significant in the case of the ousted Rajasthan Deputy Chief Minister Sachin Pilot and the 18 MLAs, who were issued a notice under the anti-defection law after the ruling Congress sought their disqualification.
- They have approached the Rajasthan High Court challenging the constitutionality of Paragraph 2(1)(a) of the Tenth Schedule which makes "voluntarily giving up membership of a political party" liable for disqualification.
    - Constitutional courts cannot judicially review disqualification proceedings under the Tenth Schedule (anti-defection law) of the Constitution until the Speaker or Chairman makes a final decision on merits.

Kihoto Hollohan versus Zachillu and Others Judgement:

- A 28-year-old judgment of the Supreme Court in Kihoto Hollohan versus Zachillu and Others has said that "judicial review cannot be available at a stage prior to the making of a decision by the Speaker/Chairman and a quia timet action would not be permissible. Nor would interference be permissible at an interlocutory stage of the proceedings."
- "The only exception for any interlocutory interference being cases of interlocutory disqualifications or suspensions which may have grave, immediate and irreversible repercussions and consequence," the Bench had held.

Meaning of Judicial Review

Judicial Review can be understood as a form of court proceeding, usually in the Administrative Court where the lawfulness of a decision or action is reviewed by the judge. Where there is no effective means of challenge, judicial review is available. The concern behind Judicial Review is that whether the law has been correctly applied with and right procedures have been followed

Judicial Review and Constitution

- According to Article 13(2), the Union or the States shall not make any law that takes away or abridges any of the fundamental rights, and any law made in contravention of the aforementioned mandate shall, to the extent of the contravention, be void.

- Judicial review is called upon to ensure and protect Fundamental Rights which are guaranteed in Part III of the Constitution.
- The power of the Supreme Court of India to enforce these Rights is derived from Article 32 of the Constitution. This provides citizens the right to directly approach the SC to seek remedies against the violation of Fundamental Rights.

1.4. Disabled are entitled to same benefits of SC/ST quota: SC

Context:

According to the recent decision of the Supreme Court, persons with disabilities are entitled to the same benefits of SC/ST quota.

Supreme Court Judgement:

- The Supreme Court, in a significant decision, confirmed that persons with disabilities are also socially backward and entitled to the same benefits of relaxation as Scheduled Caste and Scheduled Tribe candidates in public employment and education.
- A three-judge Bench led by Justice Rohinton Nariman upheld a 2012 judgment of the Delhi High Court in ***Anamol Bhandari (minor) through his father/Natural Guardian v. Delhi Technological University***.
    - "In Anamol Bhandari, the High Court has correctly held that people suffering from disabilities are also socially backward, and are therefore, at the very least, entitled to the same benefits as given to the Scheduled Caste/Scheduled Tribe candidates," the Supreme Court held in the judgment.

1.5. Making justice accessible through live streaming

Context: The pandemic has presented the Supreme Court with both a challenge and an opportunity to adopt technology. As the lockdown began, the Court had to quickly find the technology and create protocols for virtual courts and e-hearings.

Background:

- Before this, the judicial system assumed that physical presence was necessary for justice dispensation.
- Further the Indian Supreme Court has maintained **no public record of its own proceedings.** Nor were its proceedings broadcast live for public viewing.
- Although people are allowed to visit the open court rooms as part of justice dispensation under Article 21 of the constitution.

Need for Live Streaming:

- **Restricted Access:** Owing to security constraints, a pass is mandatory for entering the SC and due to spatial constraints law students can't enter on Monday and Friday.
- **Swampil Tripathi Case 2018:** The court recommended proceedings must be live and deemed live proceedings as a **part of the right to access justice under Article 21 of the Constitution.**
    - Further publishing the proceeding is a duty **under Article 129** of the constitution as per which SC is a court of record.
- **International Norms:** In many democratic and non democratic countries, constitutional court proceedings are recorded in some form or another.
    - In Australia they are recorded and posted on the high court's website.
    - Proceedings of SCs of Canada, England, Brazil and Germany are broadcasted live.

    - Court proceedings are live streamed from trial courts up to the Supreme People's Court of China.
- **Augment Trust in Judiciary:** Live streaming helps citizens understand nitti gritrities of critical cases which leave a significant impact on people like the Ayodhya Verdict, **Section 377** case etc.. , otherwise they need to depend on lawyers for getting some insights.This strengthens trust of masses in the judiciary.
- **Ancestral Knowledge:** Budding lawyers and jurists can learn a lot if they have access to repositories of cases fought by stalwart lawyers like HM Seervai, Ram Jethmalani etc.

Steps already taken to improve access:

- The Court started providing **vernacular translations of its judgments**.
- Non-accredited journalists were permitted to **live-tweet court proceedings.**
- During the lockdown, journalists have been **permitted to view virtual court proceedings** in real time.

Way Ahead:

- The Court must expand the right of access to justice **by live-streaming proceedings as technology for the same is readily available and** already tested on journalists.
- The **SC must take advantage of as many modes of communication as possible** — including the internet, social media, television and radio.
    - This will enable it to reach a wide cross-section of Indian society.
- Further, court proceedings **must also be documented and preserved for posterity**.
    - Both audio-visual recordings and transcripts of oral arguments should be maintained for this purpose.
- To begin with constitutional and national importance cases can be live streamed as a pilot project while cases pertaining to national security can be excluded.

It seems likely that for the next few years, Indian courts, too, **will have to adopt a combination of virtual and in-person hearings**. The SC has chosen to play an influential role as an institution of constitutional governance under which public is rightly interested, and has a right to

1.6. Re-enfranchise the forgotten voter

Context:

- **In response to the COVID-19 pandemic, the Election Commission of India (ECI) has made it possible for senior citizens above the age of 65 to vote by postal ballot, given that** they are at greater risk from exposure to the novel coronavirus.
- Hitherto, this option was available only to disabled citizens and those above 80 years.
- However, postal ballots may not minimise the risk of infection and it may be better instead to provide separate voting booths for senior citizens.

Migrants on the margins

- Same empowering approach be extended to another group which faces enormous difficulties in exercising its franchise: migrant workers.
- Migrant workers travel across India in search of an economic livelihood, and many never intend to settle down and wish to return to their native villages and towns.
- Migrant workers become quasi-disenfranchised, forgotten voters because they cannot afford to return home on election day to choose their representatives.

- Internal migrant workers do not enrol as voters in their place of employment since they find proof of residence hard to provide.
- Many are seasonal migrants who would rather vote in their villages if they could afford to return home.
- Since they do not have a vote where they work, their concerns are easy to ignore in their host State.
- Sometimes, they are targeted for allegedly taking jobs away from the local population.

Task before the ECI

- Ensuring that every Indian who is eligible to vote can do so must be a central mission for the ECI.
- It is a matter of pride that India currently has over 91.05 crore registered voters and **in the 2019 general election, a record 67.4%, i.e., more than 60 crore voters, cast their vote.**
- The ECI would do well to focus attention on the one-third, a substantial 29.68 crore, who did not cast their vote.
- National Election Study surveys have shown that about 10% of registered voters refrain from voting due to a lack of interest in politics.
- **That leaves approximately 20 crore voters who want to vote but are unable to do so.**
- Of these there are about three crores Non-Resident Indians (NRIs). Only about one lakh NRIs have registered to vote.
- To enable NRIs to exercise their franchise, the government brought in legislation in the previous Lok Sabha to enable voting through authorised proxies.

Does our system enable any form of voter portability that can serve as a model for re-enfranchising migrant workers?

- Yes. Service voters (government employees) posted away from home can vote through the Electronically Transmitted Postal Ballot System (ETPBS).
- Classified service voters (e.g., military personnel) can do so through their proxies.
- The ECI has said that it is testing an Aadhaar-linked voter-ID based solution to enable electors to cast their votes digitally from anywhere in the country. It will be some time in the future before this becomes a functional reality.

Way Forward

- To facilitate voting by migrant workers, the ECI could undertake substantial outreach measures using the network of District Collectorates.
- Migrants should be able to physically vote in their city of work based on the address on their existing voter IDs and duration of their temporary stay.
- It is technologically feasible to record and transfer votes to their respective constituencies without compromising on the credibility of the election process.

1.7. In the name of 'cooperative federalism'

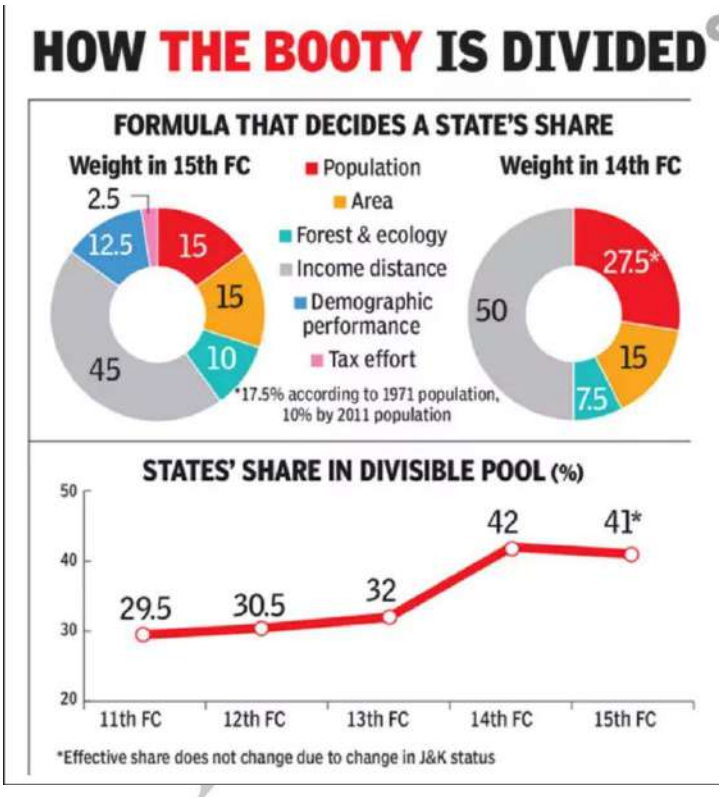
Context: The states are urging the Central Government to work in the spirit of cooperative federalism.

More on News:

- The central government is being criticised owing to the gap between what the 14th Finance Commission (FC) promised to states and what they are receiving.
- Earlier the principal tool to coerce states was Article 356 (State Emergency) of the constitution but now non adherence to FC's report in spirit is adversely impacting them.

Hurdles faced by states:

- **Delayed payments:** The 14th FC recommended 42% share of taxes of the centre to states, up from earlier 32% but tax devolution has been quite low.
    - The economic slowdown coupled with a shortfall in GST collections are primary reasons behind this.
    - The Centre owed States about Rs. 35,000 crore as GST compensation for December 2019 and January 2020, which was only paid in June 2020 after a delay of more than five months.



- **Cess Approach:** The centre is resorting to cess route as the same is not to be shared with states, thereby decreasing the amount to be transferred from Central pool of taxes.
- **More Burden of Social Development:** As per a study by the Centre for Policy Research, there is a **Rs. 6.84 lakh crore gap** between what the 14 FC promised to States and what they have received.
    - Still in 2014-2015 the states undertook programmes and projects spending 46% more than the Central Government; today the figure is 64%.
- **Lack of Centre's Support:** The states are not receiving adequate financial support considering the nature and magnitude of liability.
    - For instance in West Bengal the State government had spent Rs.1,200 crore in fighting COVID-19 while the Centre has given Rs. 400 crore under the National Health Mission and to the State Disaster Response Mitigation Fund, but specifically for the pandemic.
- **Directives to Cut the Expenditure:** The Ministry of Finance has instructed other ministries to cut expenditure due to which crucial programmes in the states has come to standstill
    - The rural development ministry has not transferred the promised 4900 crores to west bengal which has impeded the local area development in the state.
- **FRBM Act provisions**: As per provisions of the Fiscal Responsibility and Budget Management (FRBM) Act, the Gross State Domestic Product (GSDP) can actually accommodate a fiscal deficit of 3%.
    - This would be difficult to achieve amidst the pandemic.
    - Further the "escape clause" that allows for a one-time relaxation of the fiscal deficit threshold upto 0.5% in a time of exigency has already been utilised by the Centre but it has proven woefully insufficient in addressing the current crisis

Way Ahead:

- In such difficult times the Central and State governments must keep their political gains aside and work together in the spirit of cooperative federalism.
    - **It is a concept of federalism** in which federal, state, and local governments interact cooperatively and collectively to solve common problems, rather than making policies separately.
- **The rigidity of the FRBM has to be revisited**.

- It should allow for greater flexibility and consultation as to when and how the "escape clause" can be applied.
- In theory, t**he Centre has raised the fiscal deficit limit for States, under the FRBM, from 3% to 5%.**
  - But only 0.5% of this rise is unconditional.
  - The remaining 1.5% is dependent on fulfilling certain difficult conditions — including privatisation of power distribution, and enhancing revenues of urban local bodies.

1.8. Supreme Court issues notice to Prashant Bhushan over tweets

Context: The Supreme Court took suo motu cognisance and initiated the **contempt of court case** against public rights activist and lawyer Prashant Bhushan.

What is the issue?

- This step was taken by the apex court against his tweet criticising the current Chief Justice of India and the role of some Chief Justices of India in the last six years.
- As per the court if there is any issue with respect to the judgment delivered or procedure followed by the judiciary, then queries must be brought before the courts rather than humiliating the judiciary on social media platforms.
- The apex court opinionated that the tweets by Mr Bhushan undermined the prestige of the CJI office and portrayed the judiciary in a bad light.

What is Contempt Of Court?

- As per the C**ontempt of Courts Act 1971,** contempt refers to the **offence of showing disrespect to the dignity or authority of a court**. It divides contempt into **civil and criminal contempt.**
  - **Civil contempt:** It is willful disobedience to any judgment, decree, direction, order, writ or other processes of a court or wilful breach of an undertaking given to the court.
  - **Criminal contempt:** It is any act which may result in scandalising the court by lowering its authority, interference in the due course of a judicial proceeding, an obstruction in the administration of justice.
- The act was **amended in 2006 in order to include the defence** of truth **under Section 13 of the original legislation**. It states that the court must permit justification by truth as a valid defence if it is satisfied that it is in the public interest.
- The reason why the concept of contempt exists is to **insulate the institution from unfair attacks and prevent a sudden fall in the judiciary's reputation in the public eye.**

Constitutional Provisions related to this:

- **Article 129:** It grants the Supreme Court the power to punish for contempt of itself.
- **Article 142(2):** It enables the Supreme Court to investigate and punish any person for its contempt.
- **Article 215:** It grants every High Court the power to punish for contempt of itself.
- **Concerns-** A**rticle 19(1)(a) of the Constitution** gives the right to freedom of speech and expression to all citizens, while "contempt provisions" curb people's freedom to speak against the court's functioning.
  - The law is **very subjective** which might be used by the judiciary arbitrarily to suppress their criticism by the public.

Punishment for Contempt of Court:

- The Supreme Court and High Courts have the power to punish for contempt of court, either with **simple imprisonment for a term up to six months or with fine** up to Rs. 2,000 or with both.
- The High Courts have been given special powers to punish contempt of subordinate courts, as per Section 10 of The Contempt of Courts Act of 1971.

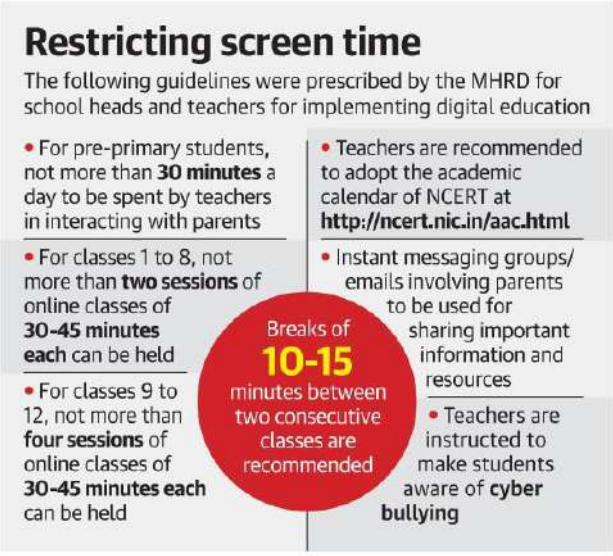
Way Forward:

- In an era in which social media are full of critics, commentators and observers who deem it necessary to air their views in many unrestrained and uninhibited ways, the higher judiciary should not really be spending its time and energy invoking its power to punish for contempt of itself.
- The law for criminal contempt is completely asynchronous with our democratic system which recognises freedom of speech and expression as a fundamental right.
- Need to revisit the need for a law on criminal contempt, even the test for contempt needs to be evaluated like whether the weather contemptuous remarks in question actually obstruct the Court from functioning.
- In an existing system in which judges are not expected to disclose the reason for recusing themselves, and even charges of sexual harassment are not credibly investigated, it is only the fear of scandalising the judiciary that restrains much of the media and the public from a more rigorous examination of the functioning of the judiciary.
- The contempt doctrine fell into disuse, and England abolished the offence of "scandalising the court" in 2013 and there is a need to revisit the need for a law on criminal contempt in India also.

1.9. PRAGYATA: Guidelines on Digital Education

Context:

- Recently, the Ministry of Human Resource Development (MHRD) has released guidelines on digital education titled 'PRAGYATA'.
- The guidelines have been prepared by the National Council of Educational Research and Training (NCERT).
- These are only advisory in nature and state governments can formulate their own rules, based on local needs.
- The guidelines include eight steps of online/digital learning i.e. Plan- Review- Arrange- Guide- Yak (talk)- Assign- Track- Appreciate.


Restricting screen time
The following guidelines were prescribed by the MHRD for school heads and teachers for implementing digital education
• For pre-primary students, not more than 30 minutes a day to be spent by teachers in interacting with parents
• For classes 1 to 8, not more than two sessions of online classes of 30-45 minutes each can be held
• For classes 9 to 12, not more than four sessions of online classes of 30-45 minutes each can be held
Breaks of 10-15 minutes between two consecutive classes are recommended
• Teachers are recommended to adopt the academic calendar of NCERT at http://ncert.nic.in/aac.html
• Instant messaging groups/ emails involving parents to be used for sharing important information and resources
• Teachers are instructed to make students aware of cyber bullying

Digital Access:

- Over 25 crore students across the country have been out of school since mid-March 2020. (owing to Covid-19 pandemic). The guidelines acknowledge that these students live in households which fall into different categories:
  - Those who have computers or smartphones with 4G internet access.
  - Those with smartphones but limited or no internet access.
  - Those with television with cable or DTH.
  - Those with a radio set or a basic mobile phone with FM radio.
  - And those with no communication devices at all.

- It emphasised the aim of digital classrooms is not to try and recreate Face-to-Face (F2F) classrooms over the internet.
- **Need for Survey:** It advises schools to first survey the digital infrastructure available with teachers as well as students, the levels of parental involvement before making decisions about the mode of teaching.
    - Therefore, schools must also make arrangements to reach students who do not have access to any digital infrastructure at home.
- **Duration:** For kindergarten, nursery and pre-school, only 30 minutes of screen time per day for interacting with parents is recommended.
    - Schools can hold live online classes for a maximum of 1.5 hours per day for Classes 1-8, and 3 hours per day for Classes 9-12.
- **Synchronous or Real-time Communication:** This is real-time teaching and learning that can happen collaboratively at the same time with a group of online learners or individuals, and teachers allowing instant feedback, e.g. online teaching through video conference, audio conference, using satellite or telecommunication facilities.
    - However, schools should not assume that teaching-learning through it is the only requirement in order to support effective digital learning.
- **Asynchronous Learning:** Apart from live classes, it offered a number of recommendations for asynchronous learning with tools to allow students to download lessons or listen to radio and TV programmes, communicate through Whatsapp and SMS, study on their own and undertake creative projects.
- **Health Issues:** Children exposed to digital technologies or gadgets for a longer time are prone to severe health issues.
    - Hence sitting with digital gadgets for longer hours or their excess use can be avoided by designing age appropriate schedules.
- **Cyber Safety:** It also recommends ethical practices including precautions and measures for maintaining cyber safety.
- **Convergence:** It envisages convergence with the government initiatives on digital education e.g. SWAYAM Prabha, SWAYAM, DIKSHA and Radio Vahini, Shiksha Vaani.

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2. Economy

2.1. SBI unit to set up SPV for aiding NBFCs on liquidity

Context:

According to RBI, State Bank of India's SBICAP unit would set up a Special Purpose Vehicle (SPV) to assist NBFCs and HFCs to improve their liquidity following the Centre's approval of a Special Liquidity Scheme (SLS) for the purpose.

Background – Special Liquidity Scheme (SLS):

- Under the 20-lakh crore rupees economic relief package titled Atmanirbhar Bharat Abhiyan, the Prime Minister had announced the Special Liquidity Scheme of 30,000 crore rupees to buy investment-grade debt paper from both primary and secondary markets.
- Such paper would be fully guaranteed by the government.
- The special liquidity scheme is expected to break the low confidence cycle in the market for lending to the NBFCs, housing finance companies and microfinance institutions.
- It will help these low rated finance companies to raise debt.
- It was announced to ward off any potential systemic risks to the financial sector.

Details:

- The RBI also issued guidelines specifying the norms that would make non-banking financial companies (NBFCs) and housing finance companies (HFCs) eligible to avail funds under SLS.
    - NBFCs and HFCs looking to avail the funds should not have net non-performing assets of more than 6% as on March 31, 2019, and should have made a net profit in at least one of the last two preceding financial years.
    - The Capital to Risk (Weighted) Assets Ratio/Capital Adequacy Ratio of NBFCs/HFCs must not be below the regulatory minimum, i.e., 15% and 12%, respectively, as on March 31, 2019,
    - They should not have been reported under the SMA-1 or SMA-2 category by any bank for their borrowings during one year prior to August 1, 2018; and should be rated investment grade by a SEBI-registered rating agency.

2.2. Loan Agreements between Government of India and World Bank

Context:

The Government of India, the Government of Tamil Nadu and the World Bank signed legal agreements to help low-income groups in the state of Tamil Nadu get access to affordable housing.

Details:

- The legal agreements were signed for two projects – $200 million **First Tamil Nadu Housing Sector Strengthening Programme** and $50 million **Tamil Nadu Housing and Habitat Development Project** – to strengthen the state's housing sector policies, institutions, and regulations.
- Nearly half of Tamil Nadu's population is urban, and this is expected to increase to 63 percent by 2030. An estimated 6 million people are currently living in slums (representing 16.6 percent of the state's urban population).

First Tamil Nadu Housing Sector Strengthening Programme:

- This programme supports the government's ongoing efforts to increase the availability of affordable housing by gradually shifting the role of the state from being the main provider to an enabler.
- It will also aim to unlock regulatory barriers and incentivise private sector participation in affordable housing for low-income families.

Tamil Nadu Housing and Habitat Development Project:

- This project will support innovations in housing finance and strengthen housing sector institutions in the state.
- It will finance the newly created Tamil Nadu Shelter Fund (TNSF) – an innovation in housing finance in India – by providing an equity contribution of $35 million.
- This initial support to TNSF will enable cross-subsidisation opportunities where higher returns from commercial and high-income developments will compensate for lower returns from affordable housing.
- This will make affordable housing commercially viable for potential investors.
- The project will also strengthen the capacity of key housing institutions including the Tamil Nadu Slum Clearance Board, the state's main provider of affordable housing; Chennai Metropolitan Development Authority, the land use planning authority for the Chennai Metropolitan Area; and Tamil Nadu Infrastructure Fund Management Corporation Limited, the asset management company of TNSF.

- The loans of $200 million and $50 million from the International Bank for Reconstruction and Development (IBRD) have a maturity of 20 years including a grace period of 3.5 years.

2.3. Guidelines for Evaluation of Nano-based Agri-input, food products in India

Context:

Union Minister of Science and Technology, Dr. Harsh Vardhan and Agriculture Minister Narendra Singh Tomar released the 'Guidelines for Evaluation of Nano-based Agri-input and food products in India'.

- The Guidelines are aimed to help the policymakers and regulators to frame effective provisions for future novel nano-based products in the agri-input and food sectors of India.

More Details:

- The guidelines will encourage the Indian innovators and industries to develop and commercialize new nano-based formulations and products in these sectors.
- It is expected that when compared to the bulk form of chemical inputs in crops, the use of nano-nutrients can reduce nutrient run-off into ground and surface water. This will in turn can reduce environmental pollution.
- The formulation of these Guidelines is one of the most important steps for delineating quality, safety, and efficacy assessment of the novel nano-formulations which can be commercialized.
- These guidelines are also aimed to provide transparent, consistent, and predictable regulatory pathways for nano-based agri-input and food products in the country.
- The initiative has been brought on board all the Departments and Ministries that deal with Nanotechnology, and nano-based products.
- It will also pave the way for significant benefits for the mission on Doubling Farming Income by 2022 and the National Mission on Sustainable Agriculture.

2.4. FDI From Neighbouring Countries

Context: About 200 investment proposals from China are awaiting security clearance from the Ministry of Home Affairs (MHA).

- This comes after new rules were notified early this year, making prior government approval mandatory **for** foreign direct investments (FDI) from countries which share a land border with India.
- The General Financial Rules are those rules that must be followed while using public finances.

Background:

- FDI is allowed in non-critical sectors through the automatic route and earlier these proposals would have been cleared without the MHA's nod.
- Prior government approval or security clearance from MHA was required for investments in critical sectors such as defence, media, telecommunication, satellites, private security agencies, civil aviation and mining and any investments from Pakistan and Bangladesh.
- India and China have been engaged in a standoff along the Line of Actual Control (LAC) in Eastern Ladakh as there has been a massive buildup of Chinese troops since April-May which has further aggravated the problem.

Greater scrutiny | The change in FDI policy has led to the MHA taking a closer look at foreign investors
As per FDI policy, all proposals from foreign investors in non-critical sectors were cleared through the automatic route and those in sensitive sectors were sent to the MHA for security clearance
Following changes in FDI policy in April, all proposals from China or Chinese origin investors, even in non-critical sectors, are required to get prior approval and security clearance by MHA
The objective of the national security clearance is to evaluate potential threats in proposals received
The policy was revised first in 2015 and then in 2018 to give an impetus to the government's Make in India plan
In 2019, the MHA informed the Lok Sabha that the framework for security clearance had been streamlined and the average time taken had reduced from 104 days in 2014 to 60 days in 2019

What changes were made in the FDI policy?

- The amendment was aimed at preventing "opportunistic takeovers" of Indian companies amid the COVID-19 pandemic. The move is intended to monitor and check investments into Indian companies from neighbouring countries.

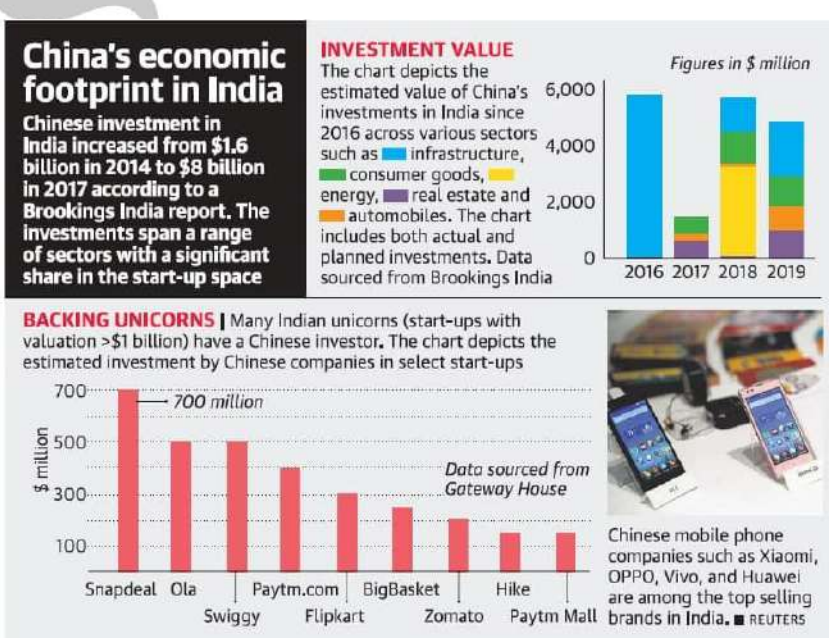
- The amendment was to enable the imposition of restrictions on bidders from countries which share a land border with India in relation to public procurement for reasons of national security and other factors directly or indirectly related to the country's defence.

Key Highlights:

- Any FDI proposal by investors from the bordering countries will now require government clearance, even if foreign investments for that sector are placed under the automatic route.
- Any bidder from countries sharing a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority.
- The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).
- The amendments take into its ambit public sector banks and financial institutions, autonomous bodies, Central Public Sector Enterprises (CPSEs) and public-private partnership projects
- Political and security clearance from the Ministries of External and Home Affairs respectively will be mandatory.
- The Central government has written to the State Governments for invoking the provisions of Article 257(1) of the Constitution of India for the implementation of these amendments in procurement by State Governments and state undertakings etc.
  - **Article 257 (1)** says that the executive power of the union shall be extended to give directions to the state.

Concerns:

- The new rules will pose operational difficulties for many entities like many c**ompanies might withdraw due to the delay or stringent conditions put in place.**
- Some sectors like automobile, the real estate already marred with **less demand and weakness in capital formation** might face the brunt of change in the rules.
- This could result in **less potential buyers and further depress** the value of Indian firms in the market.


China's economic footprint in India
Chinese investment in India increased from $1.6 billion in 2014 to $8 billion in 2017 according to a Brookings India report. The investments span a range of sectors with a significant share in the start-up space
INVESTMENT VALUE
The chart depicts the estimated value of China's investments in India since 2016 across various sectors such as infrastructure, consumer goods, energy, real estate and automobiles. The chart includes both actual and planned investments. Data sourced from Brookings India
Figures in $ million
6,000
4,000
2,000
0
2016 2017 2018 2019
BACKING UNICORNS | Many Indian unicorns (start-ups with valuation >$1 billion) have a Chinese investor. The chart depicts the estimated investment by Chinese companies in select start-ups
$ million
700
500
300
100
700 million
Data sourced from Gateway House
Snapdeal
Ola
Swiggy
Paytm.com
Flipkart
BigBasket
Zomato
Hike
Paytm Mall
Chinese mobile phone companies such as Xiaomi, OPPO, Vivo, and Huawei are among the top selling brands in India. ■ REUTERS

2.5. Grant in Aid for Rural Local Bodies

Context:

- Recently, the Ministry of Finance has released a part of grants-in-aid of Rs. 15187.50 crore for around 2.63 lakh Rural Local Bodies (RLBs) of 28 States.
- This has been made on the recommendations of the Ministry of Panchayati Raj and the Department of Drinking Water and Sanitation, Ministry of Jal Shakti.
- This forms part of the Tied Grant as recommended by the 15th Finance Commission (FC) for the Financial Year (FY) 2020-2021.

Finance Commission

- It is a constitutional body, that determines the method and formula for distributing the tax proceeds between the Centre and states and among the states as per the constitutional arrangement and present requirements.
- Under Article 280 of the Constitution, the President of India is required to constitute a Finance Commission at an interval of five years or earlier.
- The 1st FC was set up in 1951 and there have been fifteen so far.
- The 15th FC headed by N.K. Singh was constituted by the President of India on 27th November 2017, against the backdrop of the abolition of the Planning Commission and the introduction of the Goods and Services Tax (GST).
- In November 2019, the Union Cabinet approved the 15th FC to submit its first report for the first fiscal year 2020-21 and to extend its tenure to provide for the presentation of the final report covering Financial Years 2021-22 to 2025-26 by 30th October, 2020.

More Details:

- **Recommendation of 15th FC:** It recommended the grant in aid of Rs. 60,750 crore for (FY 2020-21) the RLBs which is the highest ever allocation made by the Finance Commission in any single year.
- **Allocation**: It will be allocated in two parts, namely Basic Grant and Tied Grant in 50:50% mode.
- **Basic Grant:** These grants are untied and can be used by RLBs for location-specific needs, except for salary or other establishment expenditure
- Untied funds are utilised for the works of emergent nature which are normally not covered under the schemes decentralized at the district level.
- Tied Grants: These are used for the basic services of:
    - Sanitation and maintenance of Open-Defecation Free (ODF) status.
    - Supply of drinking water, rain water harvesting and water recycling.
    - The RLBs shall, as far as possible, earmark one half of these grants each to these two critical services.
    - However, if any RLB has fully saturated the needs of one category it can utilize the funds for the other category.

Distribution: The State Governments will be distributing the grants to all the tiers of of the Panchayati Raj -village, block and district including the traditional bodies of 5th and 6th Schedule areas based on the accepted recommendations of the latest State Finance Commission (SFC) and in conformity with the recommendations of the 15th FC.

Assistance: The Ministry of Panchayati Raj would support the states in effective utilization of the grants by providing Web/IT enabled platforms for planning, monitoring, accounting / auditing of the works and funds flow at the level of each of the RLBs.

Significance:

- Fighting Covid 19: It would help RLBs in providing employment. E.g. migrant laborers who have returned to their native places owing to Covid-19 pandemic situation.
- Delivery of Basic Services: Availability of this fund will boost RLBs effectiveness in delivery of basic services to the rural citizens.
- Rural Infrastructure: It will augment the rural infrastructure in a constructive way e.g construction of roads, supply of water etc.

2.6. Production-Linked Incentive (PLI) scheme

Context:

- Recently, the Union Minister for Chemicals and Fertilizers released the guidelines of Production-Linked Incentive (PLI) for the development of bulk drugs.

Key highlights of the guidelines:

- Participating Firms in the Production-Linked Incentive (PLI) scheme must have a net worth of 30 per cent of the proposed investment required to build the capacity.
- Applicants will be selected based on two criteria: how cheap they can sell the bulk drug and the capacity of their proposed plant. Incentives for making 18 of the bulk drugs, including penicillin G, clavulanic acid, vitamin B1, tetracycline and dexamethasone, will follow a graded format over six years.
- Between 2023 and 2027, manufacturers will get 20 per cent of their turnover with the product they choose. Between 2027 and 2028, they will get 15 per cent, and between 2028 and 2029, they will receive a 5 per cent incentive.

About the Scheme:

- It is a Scheme for Promoting Domestic Manufacturing of Medical Devices.
- As the domestic medical devices market in India is heavily dependent on imports which contribute to more than 85% of the market, the scheme intends to boost domestic manufacturing and attract large investments.
- Under the Scheme, financial incentive shall be given to selected companies at the rate of 5% of incremental sales (over Base Year) of goods manufactured in India and covered under Target segments, for a period of five (5) years i.e. from FY 2021-22 to FY 2025-26.

The manufacturers of following medical devices are eligible under the Scheme:

- Cancer care/Radiotherapy medical devices
- Radiology & Imaging medical devices (both ionizing & non-ionizing radiation products) and Nuclear Imaging Devices
- Anaesthetics & Cardio-Respiratory medical devices including Catheters of Cardio-Respiratory Category & Renal Care Medical Devices
- All Implants including implantable electronic devices like Cochlear Implants and Pacemakers.
- **Significance-** It will significantly reduce time and investment costs for setting up new manufacturing units as the new units will be eligible for the Production Linked Incentive (PLI) Scheme of the centre.

Mrunal shank AKS IAS

2.7. $400 mn currency swap facility for Sri Lanka

Context:

- Recently, the Reserve Bank of India signed a $400 million currency swap facility for Sri Lanka till November 2022.

Background:

- The RBI's action follows a recent bilateral 'technical discussion' on rescheduling Colombo's outstanding debt repayment to India.
- Following the outbreak of COVID-19 in the region, India had proposed a virtual meeting to discuss the request. Sri Lanka owes $960 million to India.
- In turn, Sri Lanka would facilitate, protect and promote a liberal ecosystem for Indian investors.

What are Currency Swaps?

- A currency swap, also known as a cross-currency swap, is an off-balance sheet transaction in which two parties exchange principal and interest in different currencies.
- Currency swaps are used to obtain foreign currency loans at a better interest rate than could be got by borrowing directly in a foreign market.

How does it work?

- In a swap arrangement, RBI would provide dollars to a Lankan central bank, which, at the same time, provides the equivalent funds in its currency to the RBI, based on the market exchange rate at the time of the transaction.
- The parties agree to swap back these quantities of their two currencies at a specified date in the future, which could be the next day or even three months later, using the same exchange rate as in the first transaction.
- These swap operations carry no exchange rate or other market risks, as transaction terms are set in advance.

Benefits of currency swap

- The absence of an exchange rate risk is the major benefit of such a facility.
- This facility provides the flexibility to use these reserves at any time in order to maintain an appropriate level of balance of payments or short-term liquidity.
- Swaps agreements between governments also have supplementary objectives like the promotion of bilateral trade, maintaining the value of foreign exchange reserves with the central bank and ensuring financial stability (protecting the health of the banking system).

2.8. RBI releases Financial Stability Report

Context:

- Recently, the Reserve Bank of India (RBI) released its semi-annual Financial Stability Report.
- It reflects the collective assessment of the sub-committee of the Financial Stability and Development Council (FSDC) on risks to financial stability.
- It also assesses the resilience of the financial system in the context of contemporaneous issues relating to development and regulation of the financial sector.

- The COVID-19 pandemic hit India in a period of growth moderation. The ensuing disruptions in demand conditions and supply chains have been aggravated by global spillovers.
- Recently the signs of a gradual recovery from the nationwide lockdown are becoming visible in the economy.
- The financial sector stability is a prerequisite for giving confidence to businesses, investors and consumers and we need to remain extremely watchful and focused.

Highlights of the report:

- The global growth outlook for 2018 and 2019 remains steady although the underlying downside risks have risen.
- The spill-over risk to emerging economies engendered by tightening of financial conditions in Advanced Economies, protectionist trade policies and global geopolitical tension has significantly increased.
- The gradual monetary policy normalisation in advanced economies (AEs) as also the uncertainty in global trade regime may adversely affect capital flows to emerging markets (EMs) and exert upward pressure on EM interest rates and corporate spreads.
- In domestic financial markets, structural shifts in credit intermediation and the evolving interconnectivity between banks and the non-banks call for greater vigilance.

Financial Institutions: Performance and risks

- Credit growth of scheduled commercial banks (SCBs) has improved between March 2018 and September 2018, driven largely by private sector banks (PSBs).
- The asset quality of banks showed an improvement with the gross non-performing assets (GNPA) ratio of SCBs declining from 11.5% in March 2018 to 10.8% in September 2018.
- Under the baseline scenario, the GNPA ratio may decline from 10.8% in September 2018 to 10.3% in March 2019.
- Analysis of the financial network structure for the period September 2017 – September 2018 reveals a shrinking inter-bank market and increasing bank linkages with asset management companies-mutual funds (AMC-MFs) for raising funds and with NBFCs/Housing Finance Companies (HFCs) for lending.

2.9. Govt. notifies 100% FDI in Air India for NRIs

Context:

- Recently, the Ministry of Finance has allowed Non Resident Indians (NRIs) to have 100% Foreign Direct Investment (FDI) in Air India.
- For the same, necessary amendments have been made in the Foreign Exchange Management Rules (Non-debt Instruments), 2019.

Background:

- In March 2020, the Cabinet approved a policy to permit foreign investment up to 100% by those NRIs who are Indian Nationals in Air India through the automatic route.

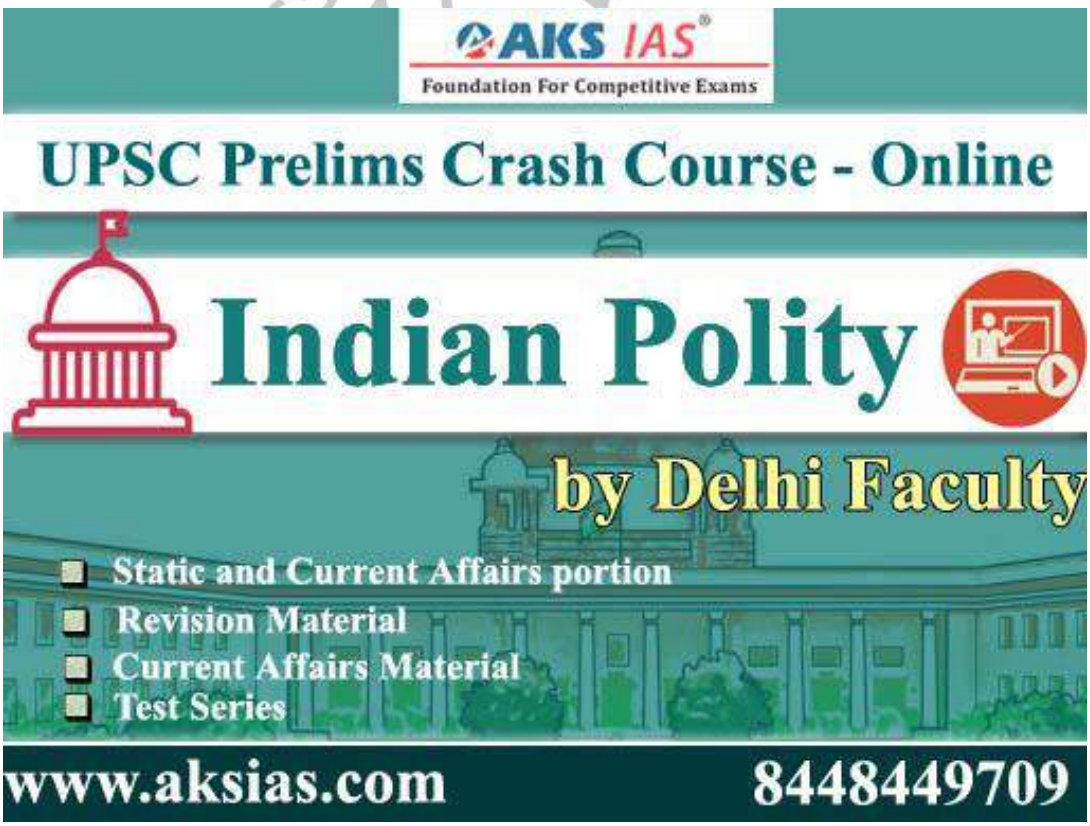
- Foreign investments in Air India Limited, including that of foreign airlines shall not exceed 49% either directly or indirectly except in case of those NRIs, who are Indian nationals.

New Rules:

- Category of Citizens: The amendment removes the exception which permitted Overseas Citizens of India (OCI) 100% FDI in air transport, but not Air India.
    - This category of citizens has been replaced with NRIs, now allowed to commit 100% FDI in air transport, including Air India, through automatic route.
- Role of RBI: The Reserve Bank of India (RBI) has been vested with the sole power to issue/interpret the rules regarding 100% FDI of NRIs.
    - Previously, it was required to do so in consultation with the Central Government.

Significance:

- Disinvestment: It would likely to smoothen the divestment of Air India and have an impact on the sale of the national carrier.
- Substantial ownership and effective control of Air India will have to remain in the hands of Indian nationals after the divestment.
- Further, it will lead to increased FDI inflows and thereby contribute to higher investment, income and employment.
- Liberalisation of FDI: The amendment is meant to liberalise and simplify the FDI policy to provide ease of doing business in the country.
- Global Visibility of Air India: The amendment would boost Brand India and provide global visibility, alternate sources of capital and broaden the investor base for Air india.
- Need for Privatisation: Privatisation is necessary as airlines have been under strain due to Covid-19 pandemic.
- Further, the government may not be in a position to fulfill the demands being made by Air India in the current situation, like providing measures for relief to its employees.



3. International Relations

3.1. In an uncertain world a seat at the UNSC

Context: As a non-permanent member of the UNSC for the next two years, India will have to navigate through a tumultuous world. Anti-terrorism will be top priority for India.

India at UNSC

- India will be back in the United Nations Security Council for a two-year term beginning January 1, 2021.
- Two-year term will be a critical time in the history of the UN.
- It is hoped that by then COVID-19 will have subsided, a U.S. President will have been elected.
- And the contours of a new world order may have emerged.

How elections take place

- The basic contest for the non-permanent seats takes place in the respective regional groups and their sub-groups.
- Voting in the General Assembly is to fulfil the requirement of countries having to secure a two-thirds majority of the member states.
- But regional endorsement is becoming difficult.
- Last time, it was Kazakhstan which vacated the place for India.
- This time, it was Afghanistan. India could not have got the endorsement without such gestures from friendly countries.

India's priorities:

- In the COVID and the post-COVID world, India will work towards a new orientation for a reformed multilateral system.
- Counter-terrorism will be one of India's highest priorities as a non-permanent member of the UN Security Council.
- The 9/11 terrorist attack was expected to change the outlook towards terrorism but that never materialised because of vested interests and traditional positions. The UN did not succeed in either defining terrorism or in adopting the Comprehensive Convention on International Terrorism.

Significance for India:

- India will have a higher profile at the UN for the next two years as the non-permanent members have a collective veto over every resolution in the Council.
    - Permanent members can prevent the adoption of resolutions by themselves, but they need at least nine votes to get a resolution passed.
- India will also have a rare peep into the consultations chamber of the UNSC, which is closed to non-members of the Council.
- India's election as a non-permanent member has ignited the hope that its quest for permanent membership of the Council may succeed

Permanent membership:

- The debate on extending the permanent membership has thrown up many ideas, but till today, none of the proposals has the possibility of securing a two-thirds majority of the General Assembly and the votes of the five permanent members.

- The permanent members are being adamant about protecting their privileged positions and also a majority of the UN members are against the privileges of the permanent members, particularly the veto being extended to new members. The opposition to the expansion is not India-specific.

Conclusion

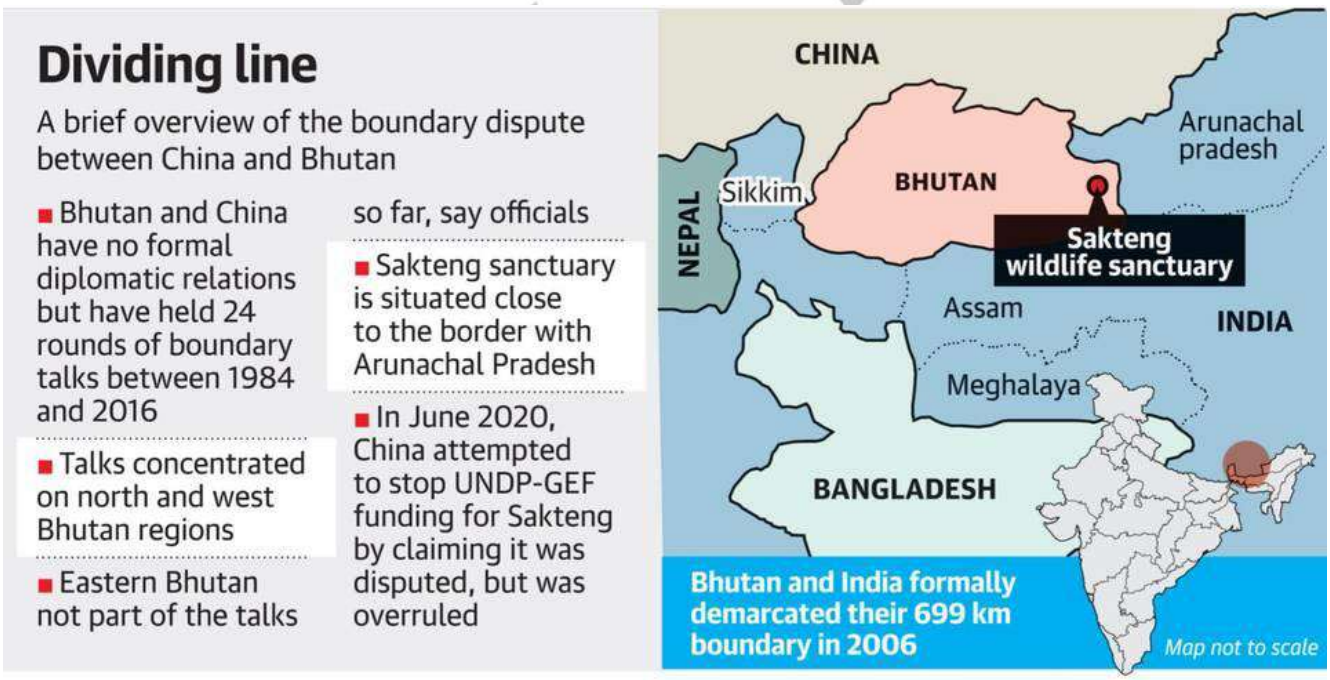
India's mission in New York has earned a reputation that it is next only to the permanent members in influence. But whether it will be able to deal with traditional challenges in novel ways will depend on the turns and twists in an uncertain world.

3.2. China doubles down on claims on eastern Bhutan boundary

Context: Days after Bhutan sent China a demarche protesting Chinese claims to the Sakteng wildlife sanctuary in Eastern Bhutan, Beijing has included Bhutan's "Eastern sectors" to the boundary dispute between the two countries for the first time.

Background to the situation

- According to written records, there has been no mention of Eastern Bhutan, or Trashigang Dzongkhag (district), where Sakteng is based, that borders Arunachal Pradesh, in 24 previous rounds of boundary negotiations held between the two countries between 1984 and 2016.
- The negotiations have not been held since the Doklam standoff between Indian and Chinese troops in 2017.
- Bhutan has always maintained a discreet silence on its boundary negotiations with China, and it does not have any formal diplomatic relations with Beijing.


Dividing line
A brief overview of the boundary dispute between China and Bhutan
Bhutan and China have no formal diplomatic relations but have held 24 rounds of boundary talks between 1984 and 2016
Talks concentrated on north and west Bhutan regions
Eastern Bhutan not part of the talks so far, say officials
Sakteng sanctuary is situated close to the border with Arunachal Pradesh
In June 2020, China attempted to stop UNDP-GEF funding for Sakteng by claiming it was disputed, but was overruled
CHINA
Arunachal pradesh
BHUTAN
Sikkim
NEPAL
Sakteng wildlife sanctuary
Assam
INDIA
Meghalaya
BANGLADESH
Bhutan and India formally demarcated their 699 km boundary in 2006
Map not to scale

Sakteng Wildlife Sanctuary :

- Wildlife sanctuary located mostly in Trashigang District and just crossing the border into Samdrup Jongkhar District, Bhutan.
- It is one of the country's protected areas. It is listed as a tentative site in Bhutan's Tentative List for UNESCO inclusion.
- The sanctuary is of easternmost temperate ecosystems and landscape
- It is part of the Eastern Himalayan subalpine conifer forests ecoregion.

- It protects several endemic species including the eastern blue pine and the black-rumped magpie.
- Important rivers: Manas Chu, Bada Chu and Dhansiri Chu.

3.3. China, Iran close to reaching trade and military partnership

Context:

Iran and China have quietly drafted a sweeping economic and security partnership that would clear the way for billions of dollars of Chinese investments in energy and other sectors.

Details:

- The partnership would vastly expand Chinese presence in banking, telecommunications, ports, railways and dozens of other projects.
- In exchange, China would receive a regular and heavily discounted supply of Iranian oil over the next 25 years.
- The proposed agreement also describes deepening military cooperation, potentially giving China a foothold in a region that has been a strategic preoccupation of the United States for decades.
- It calls for joint training and exercises, joint research and weapons development and intelligence sharing — all to fight "the lopsided battle with terrorism, drug and human trafficking and cross-border crimes."

Issues:

- The partnership undercuts U.S. efforts to isolate the Tehran government because of its nuclear and military ambitions.
- It represents a major blow to the Trump administration's aggressive policy toward Iran since abandoning the nuclear deal reached in 2015 (Joint Comprehensive Plan of Action).
    - Renewed U.S. sanctions, including the threat to cut off access to the international banking system for any company that does business in Iran, have succeeded in suffocating the Iranian economy by scaring away badly needed foreign trade and investment.
    - But Tehran's desperation has pushed it into the arms of China, which has the technology and appetite for oil that Iran needs.
    - Iran has been one of the world's largest oil producers, but its exports, Tehran's largest source of revenue, have plunged since the Trump administration began imposing sanctions in 2018; China gets about 75% of its oil from abroad and is the world's largest importer, at more than 10 million barrels a day in 2019.
- It would create new and potentially dangerous flashpoints in the deteriorating relationship between China and the U.S.

3.4. US eases drone export standards

Context: Recently, the US relaxed standards for exporting drones to friendly countries.

Key points:

- Under the new policy, drones that fly at speeds below 800 km per hour are no longer subject to the Missile Technology Control Regime (MTCR).
- Higher-speed systems such as cruise missiles, hypersonic aerial vehicles, and advanced unmanned combat aerial vehicles are not affected by this revision.

- As of now only three countries England, France and Australia are allowed to buy larger, armed drones from US manufacturers.

Significance:

- The move will increase the US's national security and economic security by improving the capabilities of its partners and by the expanding drones market to the US industry
- It modernises the US approach to implement its MTCR commitments and makes it more reflective of the technological realities.

Concern:

- The Missile Technology Control Regime adopted stringent controls on exports of advanced drones and this move can disregard this policy and is likely to undermine the credibility and influence of the MTCR.

What is The Missile Technology Control Regime (MTCR)?

- It is an informal political understanding among states that seek to limit the proliferation of missiles and missile technology.
- The regime was formed in 1987 by the G-7 industrialized countries (Canada, France, Germany, Italy, Japan, the UK, and the United States).
- Objectives- It seeks to limit the risks of proliferation of weapons of mass destruction (WMD) by controlling exports of goods and technologies that could make a contribution to delivery systems (other than manned aircraft) for such weapons.
    - It places particular focus on rockets and unmanned aerial vehicles which are capable of delivering a payload of at least 500 kg to a range of at least 300 km and on equipment, software, and technology for such systems.

3.5. India Collaborated with Israel in Defence Sector under FDI

Context: India has collaborated with the Israeli defence companies under the new liberalised Foreign Direct Investment (FDI) regime in defence manufacturing.

- Earlier, the government has increased the limit for FDI in defence through the automatic route from 49% to 74%.
- FDI is an investment made by a firm or individual in one country into business interests located in another country.

More Details:

- Recently, the Defence Ministry has given emergency powers to the Armed Forces to procure weapons systems up to Rs. 300 crore on an urgent basis without any further clearances to cut short the procurement cycle.
- Therefore, Indian Armed Forces are undertaking a series of emergency defence purchases amid ongoing tensions with China on the border.
- The Army has decided to order launchers, Spike Anti-Tank Guided Missiles (ATGM) and additional Heron Unmanned Aerial Vehicles (UAV), from Israel through the emergency procurement route.

India-Israel Defence Cooperation

Description: The strong bilateral ties of India and Israel are driven by their respective national interests—i.e., India's long-sought goals of military modernisation, and Israel's comparative advantage in commercialising its arms industries.

- The ambit of defence cooperation has widened to include other domains like space, counter-terrorism, and cyber security and intelligence sharing besides Israeli arms sales to India.
- India was the largest arms customer of Israel in 2017 with sales worth 715 million USD.
- According to the Stockholm International Peace Research Institute (SIPRI) report, Israel is the third largest supplier of defence items to India after Russia and the USA, the first and second respectively.

Historical Ties

- The strategic cooperation between the two countries began during the Sino-India War of 1962.
- In 1965, Israel supplied M-58 160-mm mortar ammunition to India in the war against Pakistan.
- It was one of the few countries that chose not to condemn India's Pokhran nuclear tests in 1998.
- It continued its arms trade with India even after the sanctions and international isolation after the nuclear tests.

Significance:

- **Patrolling and Surveillance:** The Israeli imports eases the operational ability of armed forces in wartime. For instance, the missile defence systems, and ammunition played a crucial role in controlling the escalation between India and Pakistan post-Balakot air strikes.
- **Make in India:** The export-oriented Israeli defence industry and its openness to establishing joint ventures complement both 'Make in India' and 'Make with India' in defence.
- **Trusted Supplier:** Israel has always been a 'no-questions-asked supplier', i.e., it transfers even its most advanced technology without placing limits to its use.
- Its credibility was reinforced during the Kargil War of 1999 when it supplied the Indian Air Force (IAF) with the Unmanned Aerial Vehicle (UAV) 'Searcher' and surveillance systems for Jaguar and Mirage squadrons.
- Similar weapons were used in the Balakot strike in February 2019.
- **Ready to Use Technology:** India suffers from many constraints in defence production and acquisition including lack of technical expertise, lack of manufacturing infrastructure, inadequate funding and project delays. Israel fills these shortcomings by supplying ready-to-use critical technologies, even on short notices.

Challenges:

- **Influence of USA:** Some of the Israeli technologies utilise USA components because of which the USA has veto powers over the sale of those technologies. Hence, it may cause hurdles in transportation of technologies.
- **Cold War Politics:** The potential of India-Israel ties have been sacrificed on the altar of Cold War politics. Factors like Arab–Israeli conflict, Iran-Israel conflict, constant interference of countries like Russia and USA in such issues and overall relationship of India with these countries have impacted the ties with Israel.
- **Non-Alignment:** India's commitment to the non-alignment causes freezing relations with Israel that were increasingly seen as leaning towards the Western bloc. India must strategically balance its relationship with Israel on conflict issues.
- **Dependence for Energy Security:** India's dependence on Arab states for oil imports led to a pro-Arab tilt in its West Asia Policy, which has further constrained Israel's options in the region.
- **Israel Palestine Conflict:** The territorial conflicts of Gaza Strip and West Bank have played an important role in shaping India-Israel relationships.
    - Due to Israel-Palestine peace negotiations (Oslo Accords of 1993) India has started normalising the relationship with Israel.

However, as a part of Link West Policy, India has de-hyphenated its relationship with Israel and Palestine in 2018 to treat both the countries mutually independent and exclusive.

3.6. EU, India to meet on resuming FTA negotiations

Context:

- Recently, India and the European Union (EU) held their 15th "annual" summit after a gap of more than two years.
- The practice was put off due to disagreements over trade and investment that define their bilateral ties.

More Details:
India-EU Strategic Partnership:

- **India-EU Strategic Partnership:** A Roadmap to 2025 has been endorsed between India and EU as a common roadmap to guide joint action and further strengthen the Strategic Partnership over the next five years.
- **Same Values:** India and EU both are "unions of diversity", sharing values of democracy, rule of law and human rights. Both are equally convinced of the necessity to preserve the rules-based international order and effective multilateralism.
- **Common Interests:** Both have a common interest in each other's security, prosperity and sustainable development. They can contribute jointly to a safer, cleaner and more stable world.

Trade Pact:

- India and EU have agreed to launch a high-level trade dialogue to foster progress on "balanced, ambitious and mutually beneficial" trade and investment agreements, address trade irritants and discuss supply chain linkages.
- High-level trade dialogue will be held between the EU trade commissioner and India's Commerce Minister.
- India and EU had launched talks for having a wide-ranging Free Trade Agreement (FTA), officially called broad-based Bilateral Trade and Investment Agreement (BTIA), long ago in 2007.
- The BTIA was proposed to encompass trade in goods, services and investments.
- However, the talks stalled in 2013 over differences on market access and movement of professionals.
- The EU is India's largest trading partner grouping (countrywise USA is India's largest trading partner), while India is the EU 's ninth biggest trading partner.

Civil Nuclear Cooperation:

- A civil nuclear cooperation agreement was signed between the European Atomic Energy Community or Euratom and Department of Atomic Energy, India.
- The agreement will focus on research and development cooperation for peaceful uses of nuclear energy and on new ways of using nuclear energy.

Defence and Security Cooperation:

- The two sides also agreed to scale up defence and security ties which included:

- The launch of a new maritime security dialogue.
- Consultations on crisis management and deeper cooperation between the Indian Navy and the European Union Naval Force Atalanta.
- The EU's counter-piracy military operation in the western Indian Ocean.

- The EU officials described the recent India-China border standoff on the Line of Actual Control (LAC) as a matter of considerable concern.
- India's Central Bureau of Investigation (CBI) and Europol launched negotiations to combat organised crime and terrorism.
- Both decided to intensify cooperation to tackle terror and its financing, radicalisation and abuse of the internet for such activities.
- Pakistan's support for terrorism aimed at India and other countries in the region was also figured in the discussions.

Other Negotiations:

- A joint declaration on circular economy and resource efficiency.
- A circular economy is an economic system aimed at eliminating waste and the continual use of resources.
- The renewal of a science and technology cooperation agreement and stepping up cooperation in environment and climate change.

Issues Involved:

- The EU is critical about India's "protectionist" measures on tariffs, on opening up India's services sector for European Companies and the termination of bilateral investment treaties with 25 EU member states.

- The EU also views India's recent Atma Nirbhar Bharat Abhiyaan as an initiative which might lead to protectionism.
- The trade relationship is also far below the potential, with India accounting for less than 3% of EU's total trade.
- The EU has been critical over the removal of Article 370 in Jammu and Kashmir as well as the Citizenship Amendment Act, which according to India is an internal matter.

Way Forward

- There is a need for comprehensive trade agreement that brings in strong rules, removes barriers to trade in goods and services and investments and opens up free markets. Addressing the mutual trust deficit, facilitating people's mobility and connectivity can improve mutual understanding and create opportunities for innovation and growth.
- Enhanced business cooperation between EU and India can diversify their strategic value chains and reduce economic dependency — notably on China.
- Europe's dependence on Asia for life-saving health goods has been revealed during the current pandemic. With India's vast drug manufacturing capabilities and the EU's technical expertise, a partnership between the two for the exchange of ideas, innovations, and capabilities in the health sector will benefit both regions.
- India and the EU can also cooperate over Information Communication Technology, which could help India to build strategic autonomy in the digital sphere and bring investments in emerging and disruptive technologies.

3.7. Azad Pattan Hydel Project

Context:

- Recently, Pakistan and China signed an agreement for the 700 MW Azad Pattan hydel power project on the Jhelum River in the Sudhoti district of PoK.

- It is a 1.5-billion USD project and is part of the China Pakistan Economic Corridor (CPEC).

About the project:

- It is one of five hydropower schemes on the Jhelum, the other four are Mahl, Kohala, Chakothi Hattian and Karot projects. All projects are being developed under the China Pakistan Economic Corridor (CPEC).
- It is a run-of-the-river project with a reservoir located near Muslimabad village, 7 km upstream from the Azad Pattan bridge, in district Sudhnoti, one of the eight districts of PoK.
- It will be commissioned by 2024 and will comprise a 90-metre-high dam, with a 3.8 sq km reservoir.
- It will be developed on the 'Build, Own, Operate, Transfer (BOOT)' model and will be transferred to the government of Pakistan after 30 years.

Other projects in PoK:

- Kohala project: It is a 1,124 MW hydel project that will come upon the Jhelum near Muzaffarabad. This project is one of the biggest investments by China in PoK.
- The Karot Hydropower station: it is the third project being executed by China on the Jhelum is on the boundaries of Kotli district in PoK and Rawalpindi district in Pakistan's Punjab province.
- Two more hydel projects are planned in Gilgit Baltistan namely Phandar Hydro Power, and Gilgit KIU.On the CPEC site, both are listed as "under review".

Concerns for India:

- India has strongly protested the construction of dams and other infrastructure in PoK and Gilgit Baltistan, as India claims these territories as part of Jammu & Kashmir.
- With the commission of these projects, China will have a dominant presence in the PoK region which may further escalate the tensions between China and India.
- These projects do not follow the principles of openness, transparency and financial responsibility given by the International agencies.
- Recently, Iran drops India From Chabahar Railway Project Citing Delay In Funding and this move Coincides with its Strategic Deal With China.

About China Pakistan Economic Corridor (CPEC):

- The China-Pakistan Economic Corridor (CPEC) is a 3,218-km route consisting of highways, railways and pipelines that will
- connect Gwadar port to Xinjiang in China. The CPEC is crucial for China's 'One Belt, One Road' initiative that aims to connect China to Europe and Asia.
- The Gwadar port is the showpiece of the ChinaPakistan Economic Corridor (CPEC) project, which Beijing sees as a crucial link that will help it in its drive to become a world power.

India's concerns-

- India has boycotted the OBOR and the CPEC organised by China citing sovereignty and security issues.
- The construction work by China in the disputed area includes security issues for India.
- China's maritime presence in Gwadar Port can be highly detrimental to India's maritime and economic strategy because India also imports oil from the same region.

3.8. Agreement on Scientific Cooperation Between India and EU

Context: Recently, India and the European Union (EU) agreed to renew the Agreement on Scientific Cooperation for the next five years (2020-2025) during the virtual 15th India-EU Summit.

Renewal of Agreement on Scientific Cooperation:

- India and the EU have agreed to further collaborate in research and innovation based on the principles of mutual benefit and reciprocity, as established in the India-EU Agreement on Science and Technology (2001) which expired on 17th May 2020.
- Both parties are also committed to launch the renewal procedure for the above agreement and acknowledge 20 years of cooperation on research and innovation.

European Union

- European Union (EU), is an international organization comprising 27 European countries and governing common economic, social, and security policies.
- The EU was created by the Maastricht Treaty, which entered into force on November 1, 1993.
- The treaty was designed to enhance European political and economic integration by creating a single currency (the euro), a unified foreign and security policy, and common citizenship rights and by advancing cooperation in the areas of immigration, asylum, and judicial affairs.

Significance:

- It is expected to enhance research and innovation cooperation in different fields like Water, Energy, Healthcare, Agritech & Bioeconomy, Integrated Cyber-Physical Systems, Information and Communication Technologies, Nanotechnology, and clean technologies, etc.
- It will also strengthen the institutional linkages in research, exchange of researchers, students, startups and attract co-investment of resources for co-generation of knowledge.

India-EU Science and Technology Cooperation:

- Science and Technology: India-EU Science & Technology Steering Committee meets annually to review scientific cooperation.
- The Ministry of Earth Sciences (MoES) and the European Commission (EC) have established a Co-Funding Mechanism (CFM) to support joint research projects selected under European Research & Innovation Framework Program 'Horizon 2020' related to climate change and polar research.
- Space Technology: Indian Space Research Organisation (ISRO) has had a long standing cooperation with the European Union, since the 1970s.
- ISRO and the European Space Agency are working towards enhancing cooperation in earth observation. It also involves the Copernicus programme signed in 2018.
- Copernicus is the European Union's Earth observation programme.

4. Science & Technology

4.1. ISRO releases image of Mars

Context: Indian space agency on Friday released an image of Phobos, the closest and biggest moon of Mars clicked on July 1st by the Mars Colour Camera on board the Mars Orbiter Mission (MOM).

Details:

- According to Indian Space Research Organisation (ISRO), the image was clicked by MOM when it was about 7,200 km from Mars and 4,200 km from Phobos.
- Spatial resolution of the image is 210 m. This is a composite image generated from 6 MCC frames and has been colour corrected.
- Phobos is largely believed to be made up of carbonaceous chondrites.

4.2. Hope probe: UAE launches historic first mission to Mars

Context: The United Arab Emirates (UAE) Mars Mission or 'Hope' is scheduled for launch on 16th July, 2020.

- It is one of three missions launching to Mars this month. The USA and China, both have surface rovers in the late stages of preparation.

More Details:

Hope Mission:

- It is the first interplanetary mission for the Arab World.
- The 'Hope Orbiter' will be lifted on an H-IIA rocket from Mitsubishi Heavy Industries, a machinery maker in Japan. It will be launched from Tanegashima Island in Japan.
- The UAE does not have its own rocket industry.
- Once launched, it is expected to arrive in orbit around Mars in February 2021 (the year of 50th anniversary of UAE's founding).
- It costs about USD 200 million and will carry three instruments: an infrared spectrometer, an ultraviolet spectrometer and a camera.

Expected Benefits:

- It will give planetary scientists their first global view of Martian weather at all times of day.
- Over its two-year mission, it will investigate how dust storms and other weather phenomena near the Martian surface speed or slow the loss of the planet's atmosphere into space.
- **Significance:** The country's primary aim is to inspire school children and spur its science and technology industries, which, in turn, will enable the Emirates to tackle critical issues like food, water, energy and a post-petroleum economy.

Previous UAE Space Missions:

- Has built and launched three earth-observing satellites in collaboration with a South Korean manufacturer.
- In 2019, the UAE bought a seat on a Russian Soyuz rocket and sent its first astronaut for an eight-day stay at the International Space Station.

Other Two Missions on Mars:

- NASA's Mars rover, Perseverance, with instruments to search for chemical signs of past life, is scheduled to launch on 30th July, 2020.
- China is also launching an ambitious mission to Mars, Tianwen-1.

Reasons Behind Timing of Mars Missions:

- The timing is dictated by the opening of a one-month window in which Mars and Earth are in ideal alignment on the same side of the sun, which minimizes travel time and fuel use. Such a window opens only once every 26 months.

Existing Missions on Mars:

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- Only the USA has successfully put a spacecraft on Mars. Two NASA landers are operating on the Mars i.e. InSight and Curiosity.
- Six spacecraft that are exploring Mars from orbit include three from the USA, two European and one from India (Mars Orbiter Mission).

Objective Behind Mars Exploration:

- Despite being starkly different in many ways, the Red Planet has several Earth-like features– such as clouds, polar ice caps, volcanoes, and seasonal weather patterns.
- For ages, scientists have wondered whether Mars can support life. In the past few years, Mars missions have been able to discover the possible presence of liquid water on the planet, either in the subsurface today or at some point in its past.

4.3. Low-cost Supercapacitor

Context:

- Recently, scientists at the International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) have developed a simple, low-cost, environment-friendly, and sustainable supercapacitor device.
- ARCI is an autonomous organization of the Department of Science and Technology, Government of India.

More Details:

- **Supercapacitor Device:**
    - The supercapacitor is developed from **industrial waste cotton based electrode & natural seawater electrolyte.**
    - Industrial waste cotton was **converted into highly porous carbon fibers** by activation process and then utilised to make high-performance supercapacitor **electrodes.**
    - **Natural seawater** was explored as an environment-friendly, cost-effective and alternative aqueous **electrolyte.**
- **Benefit:**
    - This supercapacitor showed great potential for practical implementation.
    - It exhibited **maximum capacitance, good durability** and **high efficiency.**
        - Capacitance is the ability of a system to store an electric charge.
        - Efficiency denotes the charge transfer in a system facilitating an electrochemical reaction.
    - **When integrated with a solar cell,** the supercapacitor will become a low cost, eco-friendly, efficient and self-powering device.
        - It has a long life cycle and can be used as maintenance-free power supply.
        - It can also overcome the drawbacks of the intermittent nature of the solar irradiation.

Conclusion:

- The development is an excellent example of creative science for the sustainable, green processes embedding principles of **waste-to-wealth.**

4.4. Pneumococcal Conjugate Vaccine

Context:

- The Serum Institute of India Pvt. Ltd, Pune, has been granted permission to manufacture the first indigenously developed Pneumonia Conjugate Vaccine (PCV) i.e. Pneumococcal Polysaccharide.
- The permission has been granted by the Drug Controller General of India (DCGI), a drug regulatory authority.
- India is planning for the nationwide rollout of PCV under Universal Immunisation Programme (UIP).

More Details:

- Description: PCV prevents pneumococcal disease.
- Pneumococcal disease refers to any illness caused by pneumococcal bacteria.
- The vaccine is a mix of several bacteria of the pneumococci family, which are known to cause pneumonia — hence 'conjugate' is included in the name of the vaccine.
- Conjugate vaccines are made using a combination of two different components.
- It is used for active immunisation against invasive disease and pneumonia caused by Streptococcus pneumoniae in infants.
- In invasive diseases bacteria invades parts of the body like blood fluid, brain and spinal cords.
- It is administered intramuscularly, i.e injected deep into the muscles.
- Earlier the demand for such vaccines were provided by licensed importers since the manufacturers were all based outside India.

Clinical Trials: Institute has conducted the Phase I, Phase II and Phase III clinical trials of Conjugate Vaccine in India.

- It has also conducted clinical trials in Gambia.

4.5. Space race to reach Mars

Context: China recently launched a rover to Mars, signaling a space race with the US.

- UAE launched the Arab world's first mission to Mars. The launch of the spacecraft Amal (Hope) took place from the Tanegashima Space Center, Japan, aboard a Mitsubishi Heavy Industries' H-II A rocket.

More on the news:

- It also marks a busy week for Mars missions, with the UAE having launched the Hope Mars mission recently.
  - It does not involve a landing, but an orbital mission that will study the Martian atmosphere.
- The current period offers a window for such launches, with the alignment of Earth and Mars allowing a short journey.

About Tianwen-1

- **China's first Mars probe** is called Tianwen-1 (formerly Huoxing 1), which means "Questions to Heaven".
- The mission consists of **an orbiter, a lander and a rover**.
- **Aims of the mission**
  - The scientific goals of the mission include **studying Martian topography and geology** and determining the composition of the surface material, climate and environment.
- **Timelines**: Tianwen-1 will reach the orbit of Mars in February 2021. The rover will land on Mars in May,2021
- The orbiter will use **high-resolution cameras to search for a suitable landing site** somewhere in the Utopia Planitia region.

China's entry in Space Race to Mars

- **Change in earlier domination**
  - Space exploration has been **dominated by the US and Russia** for more than 50 years.
  - China joining the Mars race will surely change the situation dominated by the US for half a century.
- **Space missions of China**
  - China sent a **human into space in 2003**. China has also started **plans to set up a space station by 2022.**
  - China has also sent **two rovers to the Moon,** with the second landing on the far side.
  - China, in partnership with Russia, had attempted a mission to Mars in 2011 too, but the launch had failed.

The Perseverance rover of US

- NASA's newest rover Perseverance will look for signs of habitable conditions on Mars and microbial life in its ancient past.
  - NASA's Curiosity rover has been exploring Mars since 2012. It remains active although its targeted mission life is over.
- Over its mission duration of one Martian year (687 Earth days), the mission will collect Martian rock and sediment samples for analysis on Earth.
- The mission will look for signs of microbial life
  - The rover is expected to land in the Jezero crater, which is considered to have "high potential" for hints of past microbial life.
- A key part of this mission is to set the stage for human exploration. For instance, scientific instruments like MOXIE will demonstrate a technology that converts carbon dioxide in the Martian atmosphere into oxygen.
- The Perseverance rover is equipped with specialized equipment to collect data, analyze weather conditions that can also help plan for future human missions, and produce oxygen from the carbon-dioxide-rich atmosphere.
- The rover is expected to touch down on Mars on February 18, 2021.

4.6. The concept of herd immunity

Context: A recent serological survey in national capital found the presence of coronavirus-specific antibodies in about 23% of the samples tested.

More Details:

- The results of that survey are being interpreted to suggest that about 46 lakh people in Delhi could so far have been infected with the COVID-19, and that "herd immunity" could be approaching.
- However, the scientists caution against drawing such broad conclusions. The serological surveys were carried out to answer a very specific question.

About the recent serological survey

- It was meant to detect whether the person being tested had developed antibodies against the COVID-19.
- The recent survey was carried out to assess how widespread Covid-19 could have become.
    - As it is not possible to test everyone, it is still not clear how many people in the population are infected, especially since most of the patients are asymptomatic.
    - However, detecting antibodies in random sets of people is an indirect way of estimating the extent of disease spread in a community.
- Since random people were tested, the survey indicated that the spread of the disease was much wider than what diagnostic tests suggest.
    - Information about the extent of the spread of the virus is very important for authorities to make decisions and plan containment measures.
- However, according to the scientists, the suggestion that herd immunity could be achieved in the near future was problematic.

Do antibodies ensure Immunity?

- The mere presence of the antibodies does not mean that the person is protected against the disease.
- These are two different things that holds importance
    - The amount of antibodies present, and
    - Whether it also includes what are known as "neutralizing antibodies". (Neutralizing antibodies are the ones that actually fight the disease)
- However, serological surveys are not designed to assess either the quantity of antibodies or detect the presence of neutralizing antibodies.

About the herd immunity

- Herd immunity is a stage of an epidemic disease in which some members of a population group remain protected from infection because a majority of those around them have already developed immunity.
    - This may be achieved either through vaccination or because they have been infected earlier.
- Therefore, everyone in the population group does not need to get infected before the epidemic is over.
- Once a certain proportion of the population gets infected by a disease the epidemic begins to slow down and eventually stop.
    - However, it is unclear what percentage of the population needs to be infected before herd immunity kicks in.
    - In the case of measles, herd immunity reaches only when 85% to 90% of the population attains immunity.
    - In some other diseases, the threshold could be lower. For current coronavirus, it has been suggested that between 55-70% of the population would need to be infected before herd immunity would develop.

4.7. Report on Active Pharmaceutical Ingredients: TIFAC

Context:

- Recently, the Technology Information Forecasting and Assessment Council (TIFAC) has brought a report titled 'Active Pharmaceutical Ingredients- Status, Issues, Technology Readiness, and Challenges'.
- TIFAC is an autonomous organization under the Department of Science & Technology, Government of India.

Recommendations from the Report:

- Indigenous production of Active Pharmaceutical Ingredients (APIs) needs to be scaled up to a level where the production is economically viable.
- Need for Mission mode Chemical Engineering with defined targets for uninterrupted synthesis of API molecules.
- To create mega drug manufacturing clusters with common infrastructure in India.
- Developing a Technology platform for biocatalysis for cost optimization and investing in the fermentation sector of large capacity.
- Biocatalysis refers to the use of natural substances from biological sources (such as enzymes) to speed up (catalyze) chemical reactions.
- Attention to technologies like hazardous reactions, cryogenic reactions, and membrane technology.
- Cryogenic reactions are chemical reactions performed at very low temperatures (below -150 °C).
- Membrane technology covers all engineering approaches for the transport of substances between two fractions with the help of permeable membranes.
- Focus on antiviral drugs, which require nucleic acid building blocks - Thymine, Cytosine, Adenine and Guanine - none of which are manufactured in India because of lack of manufacturing plants.
- Government encouragement for Indian companies working in chemical segments such as steroids, amino acids, carbohydrates, nucleosides, etc., to collaborate for technology development or quick technology transfer.
- Need for closer academia-industry interaction for technology development and commercialization.

India's Pharmaceutical Industry:

- It is third largest in the world, in terms of volume, behind China and Italy, and fourteenth largest in terms of value.
- It has a strong network of 3,000 drug companies and about 10,500 manufacturing units with a domestic turnover of Rs 1.4 lakh crore in 2019, with exports to more than 200 countries in the world.
- Recently, India has approved two schemes, namely the Scheme on Promotion of Bulk Drug Parks and Production Linked Incentive (PLI) and Scheme to promote domestic manufacturing of critical Key Starting Materials/Drug Intermediates and Active Pharmaceutical Ingredients in the country.

Issues Involved:

- Low-profit margins and non-lucrative industry forced domestic pharmaceutical companies to stop manufacturing APIs and start importing, which is a cheaper option with increased profit margins on drugs.
- With the availability of cheaper APIs from China, the pharmaceutical industry relies heavily on imports. The imports from China have been increasing steadily and now stand around 68%.

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5. Social Issues & Justice

5.1. UNFPA's State of the World Population 2020

Context: Recently, the State of World Population 2020 report was released by the United Nations Population Fund (UNFPA).

- The theme of the report is **'Against My Will – Defying the practices that harm women and girls and undermine equality'.**

Key Highlights:

The report highlights the **19 human rights violation against the women** – ranging from breast ironing to virginity testing, which further, deteriorate the living conditions & status of the women in society.

About UNFPA

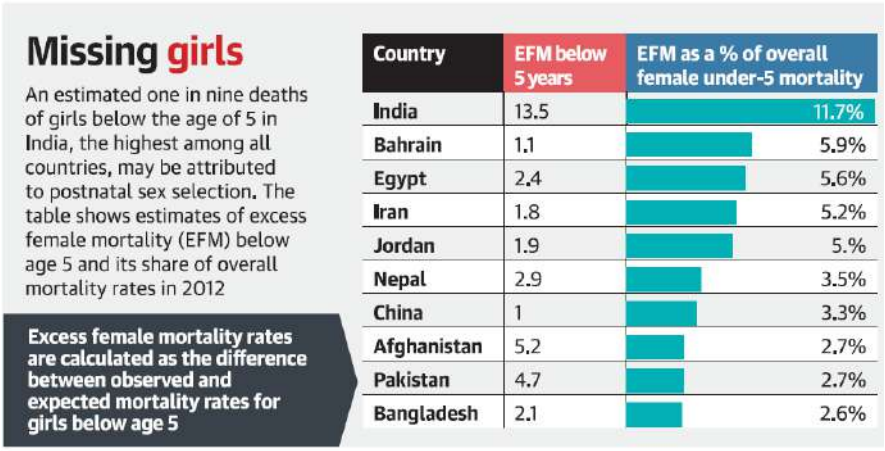
- The United Nations Population Fund (UNFPA), formerly the United Nations Fund for Population Activities, is a UN organization.
- It is the lead UN agency for delivering a world where every pregnancy is wanted, every childbirth is safe and every young person's potential is fulfilled.
- Their work involves the improvement of reproductive health; including the creation of national strategies and protocols, and birth control by providing supplies and services.
- The organization has recently been known for its worldwide campaign against child marriage, obstetric fistula and female genital mutilation.

Worldwide Prospects- The number of "missing women" in the world has more than doubled over the past 50 years – from 61 million in 1970 to a cumulative 142.6 million in 2020.

- In Afghanistan, Bangladesh and Pakistan excess female mortality of girls below 5 years of age was under 3 per cent.
- Every year, millions of girls globally are subjected to practices that harm them physically and emotionally, with the full knowledge and consent of their families, friends and communities.

India specific data- India accounts for 45.8 million of the world's 142.6 million "missing females" over the past 50 years that along with China form the majority of such women globally.

- China and India together account for about 90-95 per cent of the estimated 1.2 million to 1.5 million missing female births annually worldwide due to gender-biased (prenatal) sex selection.
- The report cites a 2014 study to state that India has the highest rate of excess female deaths at 13.5 per 1,000 female births which indicates that one in nine deaths of females below the age of 5 due to postnatal sex selection.
- In India, around 460,000 girls went missing at birth, which means they were not born due to sex-selection biases, each year between 2013 and 2017.


Missing girls
An estimated one in nine deaths of girls below the age of 5 in India, the highest among all countries, may be attributed to postnatal sex selection. The table shows estimates of excess female mortality (EFM) below age 5 and its share of overall mortality rates in 2012
Excess female mortality rates are calculated as the difference between observed and expected mortality rates for girls below age 5
Country | EFM below 5 years | EFM as a % of overall female under-5 mortality
India | 13.5 | 11.7%
Bahrain | 1.1 | 5.9%
Egypt | 2.4 | 5.6%
Iran | 1.8 | 5.2%
Jordan | 1.9 | 5.%
Nepal | 2.9 | 3.5%
China | 1 | 3.3%
Afghanistan | 5.2 | 2.7%
Pakistan | 4.7 | 2.7%
Bangladesh | 2.1 | 2.6%

5.2. No help for the domestic helps

Context:

Domestic workers struggle to make ends meet as employers choose to keep them away even during the 'unlock' phase. The lack of government welfare schemes or one-time monetary assistance has only compounded their woes

Issues:

- Though the domestic workers have been hit the most now, the problem is more deep-seated.
- The government in 2014 started working to codify and simplify 44 existing labour laws into four codes.
- One of the codes, the Code on Wages Bill, has been cleared. But the other three codes are yet to be passed by Parliament.
- The Code on Social Security, 2019, introduced in the Lok Sabha but not yet passed, will subsume eight laws, including the unorganised Workers' Social Security Act, 2008.
- A national policy for domestic workers, which can be a safety net, is still in its draft state.
- A Central Government Act for the welfare of unorganised sector workers is implemented more in the breach across the country.

Way forward:

- Unfortunately, domestic workers fall within the large informal sector where nearly 90% of Indian workers are placed. Therefore, they do not have any recourse to law for safety, payment or welfare.
- There is a need to include all domestic workers, irrespective of the category, in the social security net.
- While there are some legal instruments that give them a degree of protection, such as the Unorganised Social Security Act, 2008 and the Sexual Harassment against Women at Workplace Act, 2013, and some minimum wages provisions at the state level, there is no comprehensive legislation to address the sector.
- Laws to ensure their rights such as minimum wages, regulating the number of working hours, mandating regular holidays as well as addressing physical and sexual harassment must be formalised.
- They must be provided immediate income and livelihood support.

Conclusion:

COVID-19 is going to result in a new normal in many ways, it presents an opportunity and challenge – to enhance the value of the work of care and domestic work, address its deeply gendered nature, and reflect on ensuring their basic rights.

5.3. Fight against hunger disrupted by slowdown

Context:

The State of Food Security and Nutrition in the World (SOFI) 2020 report has been released.

- The report was released in New York on the sidelines of the High-Level Political Forum on Sustainable Development which tracks the progress of nations towards achieving Sustainable Development Goals 2030.

Findings:

- The report underlines that in line with findings in the previous editions, hunger continues to be on the rise since 2014.

- The global prevalence of undernourishment, or the overall percentage of hungry people, is 8.9%.
- Asia remains home to the greatest number of undernourished (38 crores), Africa is second (25 crores), followed by Latin America and the Caribbean (4.8 crores).
- According to current estimates, in 2019, 21.3% (14.4 crores) of children under 5 years were stunted, 6.9% (4.7 crores) wasted and 5.6% (3.8 million) overweight.
- The report highlights that a healthy diet costs more than ₹143 (or $1.90/ day), which is the international poverty threshold.
- The number of people globally who can't afford a healthy diet is at 300 crore people, or more than the combined population of China and India.

Concerns:

- It warned that between 8.3 crore and 13 crore people globally are likely to go hungry in 2020 due to the economic recession triggered by COVID-19.
- The heads of the five agencies (that jointly produce the report) warn "five years after the world committed to end hunger, food insecurity and all forms of malnutrition, we are still off track to achieve this objective by 2030."
- Estimates drawn from data available till March 2020 show that almost 69 crore people went hungry in 2019 — up by 1 crore in 2018.

5.4. For equal treatment: On upholding rights of the disabled

Context:

- Supreme Court judgment on entitlements for the disabled people.

Background:

Delhi High Court judgment of 2012:

- In 2012, a university had allowed a 10% concession in the minimum eligibility requirement for SC/ST candidates, and 5% concession for disabled applicants. This was challenged in the Delhi High Court.
- In its 2012 judgment in the **Anamol Bhandari (minor) through his father/Natural Guardian v. Delhi Technological University**, the High Court ruled against this differential treatment, terming it discriminatory.
- The major principle behind this judgment was that without imparting proper education to those suffering from disabilities, there cannot be any meaningful enforcement of their rights as mentioned under the Constitution and the prevailing legislation on providing equal opportunities to the disabled and protecting their rights.

The Rights of Persons with Disabilities Act, 2016:

- The Rights of Persons with Disabilities Act, 2016 aims to empower disabled people. This Act replaces the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995.
- The Rights of Persons with Disabilities Act, 2016 fulfills the obligations to the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), to which India is a signatory.

Salient provisions:

- The Act defines disability based on an evolving and dynamic concept. The types of disabilities covered under the Act have been increased from the existing 7 to 21 and the Central Government will have the power to add more types of disabilities.
- The Act envisages certain affirmative measures to ensure that persons with disabilities enjoy their rights equally with others. Benefits such as reservation in higher education (not less than 5%), government jobs (not less than 4%), reservation in the allocation of land, poverty alleviation schemes (5% allotment), etc. have been provided for persons with benchmark disabilities.
- Every child with a benchmark disability between the age group of 6 and 18 years shall have the right to free education. Government-funded educational institutions as well as the government recognized institutions will have to provide inclusive education to children with disabilities.
- National and State Fund will be created to provide financial support to persons with disabilities.
- The Act provides for penalties for offences committed against persons with disabilities and also violation of the provisions of the new law. Special Courts would be designated in each district to handle such cases.

Details:

- The SC has upheld the 2012 judgment of the Delhi High Court, holding that persons with disabilities are socially backward and hence are entitled to the same benefits of relaxation as Scheduled Caste and Scheduled Tribe candidates in public employment and education.
    - Similar to how SC/ST candidates get a relaxation of a certain percentage of marks to qualify for admission or employment, the same relaxation shall apply to disabled candidates too.

Significance:

- Through this judgment, the Supreme Court has recognised the difficulties faced by the disabled in accessing education or employment, regardless of their social status. People suffering from disability have always been an under-privileged and under-represented section.
- There is the issue of low literacy and employment rates among persons with disabilities.
    - As per the 2001 Census, in educational indicators, illiteracy among the disabled was much higher than the general population figure. The share of disabled children out of school was quite higher than other major social categories. The 2001 Census put the illiteracy rate among the disabled at 51%.
    - According to a study, only 34 lakh of the about 1.34 crore people with disabilities (PwDs) in the employable age have a job in India.
- The judgment could help alleviate some of the difficulties faced by this section through this affirmative action.
- According to the National Statistical Office (NSO) survey, the overall percentage of persons with disabilities in the population is around 2.2 percent. This significant segment of the population should not be left out of social and economic advancement.

Concerns:

- A counterpoint to the idea of eliminating the distinction between the disabled and the Scheduled Castes and Scheduled Tribes is that this could end up equating physical or mental disability with social disability and the experience of untouchability suffered by marginalised sections for centuries.
    - This would allow disabled persons from a traditionally privileged community an advantage over those suffering from a historical social disability.

5.5. Huge rural-urban gap in education expenditure & internet access

Context:

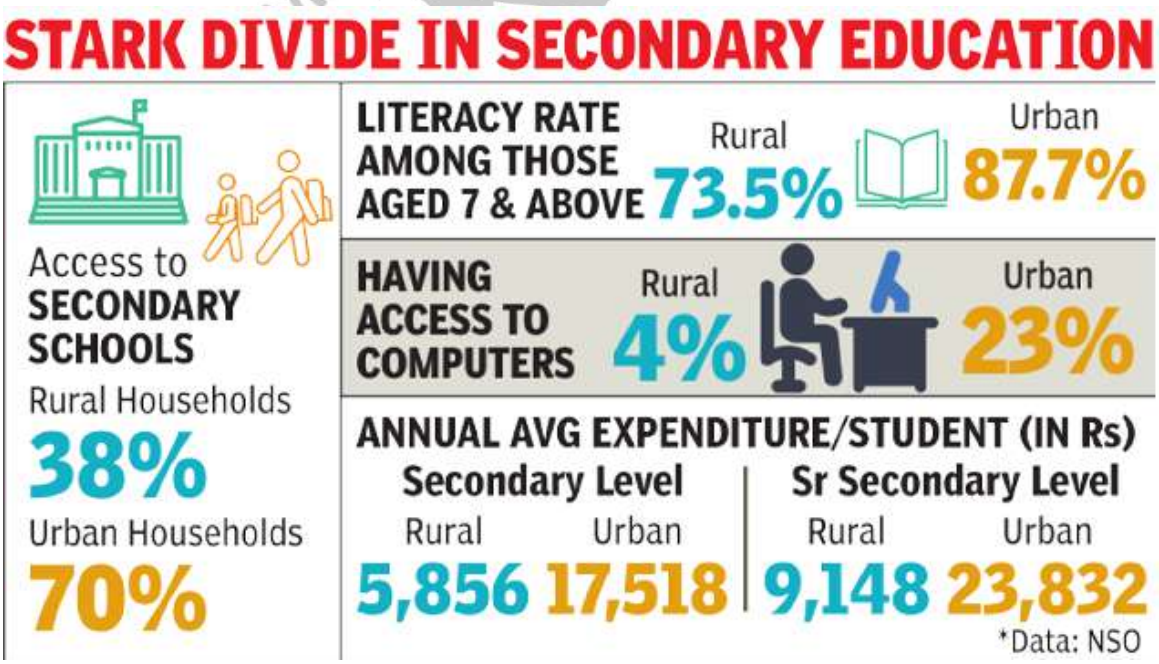
The National Statistical Office (NSO) released a report on "Household Social Consumption: Education" in which it surveyed 1.13 lakh households spread across over 8,000 villages and 6,000 urban blocks between July 2017 and June 2018.

More Details:

- The rural-urban gap remains significant in literacy, accessibility to schools and household expenditure on education.
- On Accessibility to schools,7% of the rural households have a primary school within 1 km as compared to 87.2% in urban areas. But only 38% of the rural household have access to secondary school as compared to 70% in the urban areas on similar parameters.
- The all India literacy rate among persons aged 7 years and above is 77.7%. However, for the same age group, the rural literacy is 73.5% and in the urban areas it is 87.7%.
- There is a digital divide, too, with just 4% of the rural households having access to computers as compared to 23% in urban areas. While 15% surveyed population in the rural cluster has internet access, 42% of the surveyed students in the urban areas have access to the internet.
- Annual average expenditure per student at secondary and senior secondary level in a rural household stands at Rs 5,856 and Rs 9,148 respectively. An urban household for the same classes spends Rs 17,518 and Rs 23,832 respectively.
- Around 76% of the rural children are attending primary and middle school run by the government, while only 38% of the urban children are attending government schools and instead prefer private schools.

Digital Divide:

A digital divide is any uneven distribution in the access to, use of, or impact of information and communications technologies (ICT) between any number of distinct groups, which can be defined based on social, geographical, or geopolitical criteria, or otherwise.



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6. Health

6.1. Indigenous vaccine for pneumonia gets nod

Context:

The Drug Controller General of India (DCGI) has approved the first fully indigenously developed conjugate vaccine for pneumonia.

Details:

- The vaccine is developed by the Serum Institute of India Pvt. Ltd, Pune.
- It has been granted permission to manufacture the first domestically-developed Pneumococcal Polysaccharide Conjugate Vaccine.
- Earlier the demand for such vaccine was substantially met by licensed importers since the manufacturers were all based outside India.
- Serum Institute of India has become the first to manufacture an indigenously developed pneumococcal vaccine.
- This vaccine is used for active immunisation against invasive disease and pneumonia caused by "streptococcus pneumonia" in infants and is administered intramuscularly.

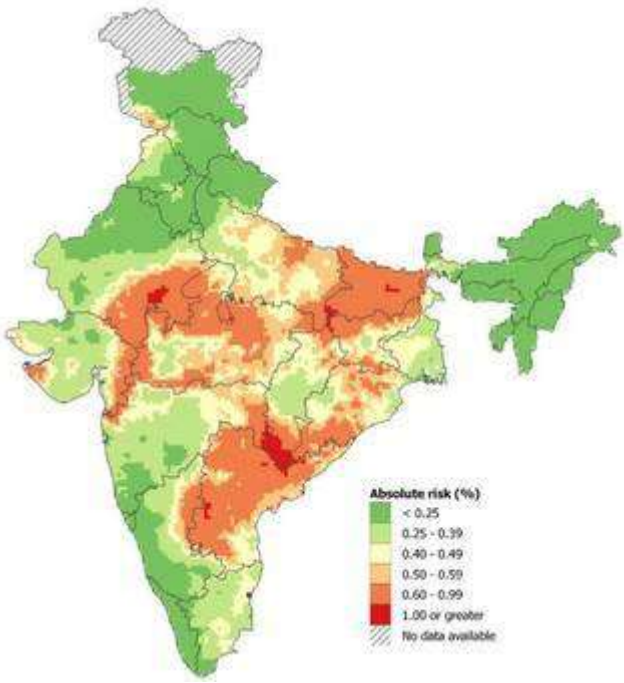
6.2. India recorded 1.2 million snakebite deaths

Context:

- Recently, a study conducted by the Centre for Global Health Research (CGHR) at the University of Toronto (Canada), with Indian and United Kingdom as partners, has revealed that India recorded 1.2 million snakebite deaths from 2000 to 2019 (i.e. an average of annual 58,000 deaths).
- Earlier, in the largest ever such survey published in 2011 titled 'Snakebite Mortality in India: A Nationally Representative Mortality Survey', estimated 46,000 annual snakebite deaths in India.

More Details:

Data Analysis:



- Half of all the snakebite deaths occurred during the monsoon period from June to September.
- Around 70% of deaths occurred in limited, low altitude, rural areas of the following States — Bihar, Jharkhand, Madhya Pradesh, Odisha, Uttar Pradesh, Andhra Pradesh, Telangana, Rajasthan and Gujarat.
- The numbers for annual snakebite deaths were highest in the states of Uttar Pradesh, Andhra Pradesh, and Bihar.
- The snakebite deaths occurred mostly in rural areas (97%), were more common in males (59%) than females (41%), and peaked at ages 15-29 years (25%).
- The overall lifetime risk of being killed by snakebite is about 1 in 250, but in some areas, the lifetime risk reaches 1 in 100.
- It also indicated that most of the envenomation (the process by which venom is injected by the bite or sting of a venomous animal) was by Russell's vipers followed by Kraits and Cobras.

Solutions:

- **Immediate Action:** As India has tremendous snakebite burden and the World Health Organization (WHO) recognises snakebite as a top-priority Neglected Tropical Disease (NTD), there is a need for immediate action.
- **Snake Safe Harvest Practices:** The primary victims of snakebites are rural farmers and their families. Targeting certain areas and educating people with simple methods such as 'snake-safe' harvest practices — using rubber boots and gloves, mosquito nets and rechargeable torches (or mobile phone flashlights) — could reduce the risk of snakebites.
- **Snake Species Database:** Habitat details, clear photographs and geographical distribution in the form of snake database would help in the identification of the venomous and nonvenomous snake species.
- **Anti-Venom:** India has sufficient capacity to manufacture large volumes of anti-venom. However, Indian anti-venoms neutralise venom from only spectacled cobra, common krait, Russell's viper and saw-scaled viper, whereas there are 12 other snake species causing fatal bites that are not covered by current anti-venoms.

- Antivenoms are the medicines produced from antibodies made by animals to injected venoms.

- It is given to stop snake venom from binding to tissues and causing serious blood, tissue, or nervous system problems.

6.3. Decline in Maternal Mortality Ratio

Context:

- Recently, the Office of the Registrar General's Sample Registration System (SRS) has released a special bulletin on Maternal Mortality in India 2016-18.
- As per the World Health Organization, maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, from any cause related to or aggravated by the pregnancy or its management.

Maternal Mortality Ratio of the Country:

- MMR has declined to 113 in 2016-18 from 122 in 2015-17 and 130 in 2014-2016.
- MMR is defined as the number of maternal deaths during a given time period per 1,00,000 live births during the same time period.
- The target 3.1 of Sustainable Development Goals (SDGs) set by the United Nations aims at reducing the global maternal mortality ratio to less than 70 per 1,00,000 live births.

MMR of Various States:

- Assam (215), Uttar Pradesh (197), Madhya Pradesh (173), Rajasthan (164), Chhattisgarh (159), Odisha (150), Bihar (149), and Uttarakhand (99).
- The southern States registered a lower MMR — Karnataka (92), Andhra Pradesh (65), Tamil Nadu (60), Telangana (63) and Kerala (43).

Government Initiatives:

- Janani Suraksha Yojana under the National Health Mission to link cash assistance to institutional deliveries.
- The Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) provides a fixed day for assured, comprehensive and quality antenatal care free of cost to pregnant women on 9th of every month.
- Pradhan Mantri Matru Vandana Yojana and LaQshya Guidelines.

Way Forward

- Maternal mortality in a region is a measure of reproductive health of women in the area.
- The WHO has already appreciated India's efforts in reducing the maternal mortality rate. India needs to give a special focus to states with higher maternal mortality ratio.

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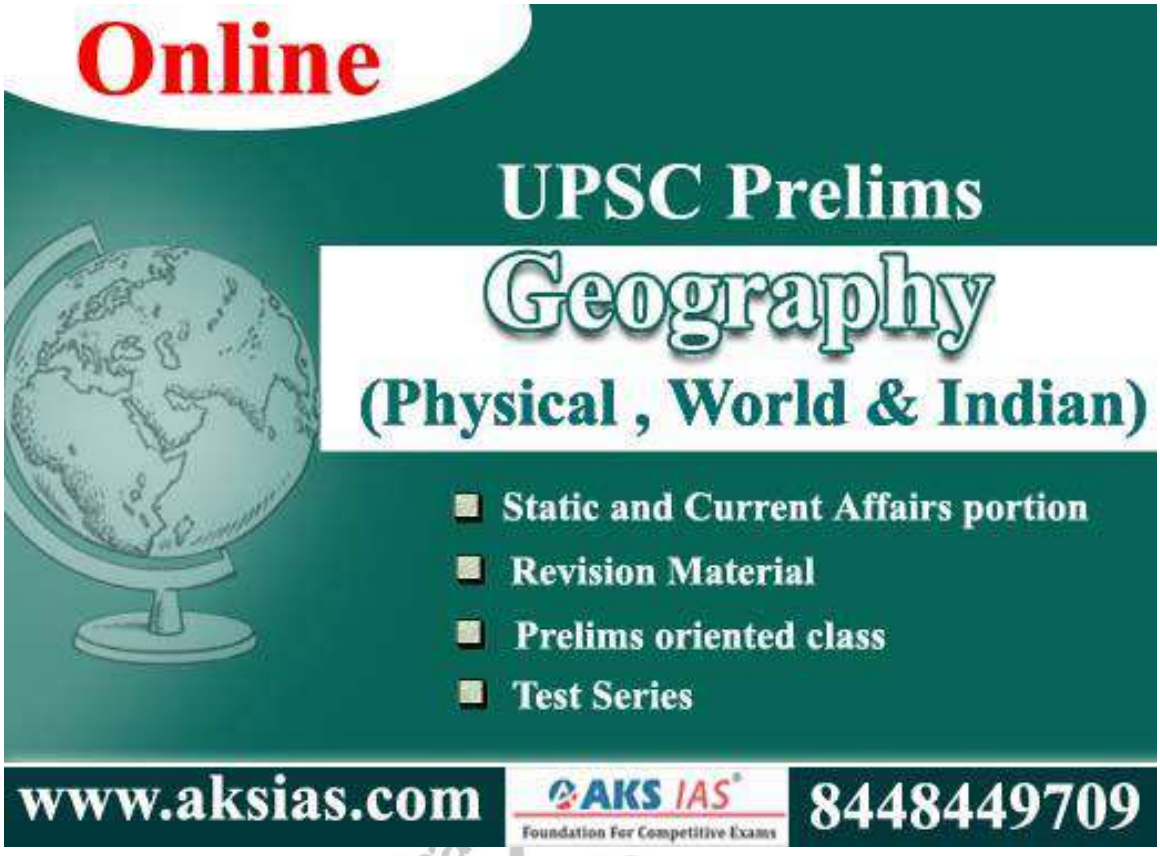

7. Internal Security

7.1. From Pinaka to Astra, the new weapons DAC has approved

Context: In the midst of India's tense border standoff with China, the defence ministry approved procurement of 33 frontline fighter jets, a number of missile systems and other military hardware at a cost of Rs 38,900 crore to bolster the combat capability of the armed forces.

More Details:

- In the current situation and the need to strengthen the Armed Forces for the defence of our borders" the DAC "accorded approval for capital acquisitions of various platforms and equipment required by the Indian Armed Forces.
- The government will buy 33 aircrafts, which include 21 MiG-29s from Russia, 12 new Sukhoi-30 fighters from Hindustan Aeronautics Limited (HAL).
- It also includes upgradation of 59 MiG-29 jets.

Indigenous Development :

- The indigenous content in some of these projects is up to 80% of the project cost. A large number of these projects have been made possible due to Transfer of Technology by DRDO to the Indigenous Industry. These include Pinaka ammunitions, BMP armament upgrades and Software Defined Radios for the Army, Long Range Land Attack Cruise Missile Systems and Astra Missiles for Navy and Air Force.
- All equipment is to be manufactured in India involving the defence industry with the participation of several MSMEs as prime-tier vendors.

Pinaka missile systems:

- Pinaka is an all-weather, indirect fire, free flight artillery rocket system. It provides a unique capability to accurately deliver a devastatingly lethal and responsive fire against a variety of area targets such as exposed enemy troops, armoured and soft skin vehicles, communication centres, air terminal complexes, fuel and ammunition dumps.
- The Pinaka weapon system consists of rocket, multi-barrel rocket launcher, battery command post, loader-cum-replenishment vehicle, replenishment vehicle and Digicora MET radar.

7.2. Govt. nod for urgent defence procurements

Context:

The Defence Ministry, once again gave emergency powers to the armed forces to procure weapons systems at costs up to ₹300 crore on an urgent basis, without any further clearances, to cut short the procurement cycle.

Details:

- Similar powers were given to the services after the Balakot air strike in February 2019.
- The decision was taken at a meeting of the Defence Acquisition Council (DAC), chaired by the Defence Minister, which the Ministry had convened considering the security environment due to the situation along the northern borders and the need to strengthen the armed forces.
- The Army has already taken a decision to place repeat orders for 72,400 SIG-716 assault rifles from Sig Sauer of the U.S. and 12 launchers and around 250 missiles of the Spike Anti-Tank Guided Missiles (ATGM) from Israel.

Long Range Land Attack Cruise Missile Systems:

- It is developed by Defence Research and Development Organisation (DRDO).
- It is aimed at enhancing the firing range of the Brahmos missile from 400-500 km to 1000 km.
- Its features include aerodynamic configuration, vertical launch using solid booster, thrust vector control system, booster separation, in-flight wing deployment, in-flight engine start and long range way-point navigation system".
- The proposed development of fully indigenous long-range land attack cruise missiles can greatly enhance the operational capability of services.

Astra Missiles:

- Astra missile **is** developed by Defence Research and Development Organisation (DRDO).
- It is a Beyond Visual Range (BVR) class of Air-to-Air Missile (AAM) system designed to be mounted on fighter aircraft. It has capability to destroy the enemy targets which are beyond their visual range.
- The missile has all weather day and night capability and will serve as a force multiplier and immensely add to the strike capability of the Navy and Air Force.

Defence Acquisition Council

- It is the highest decision-making body in the Defence Ministry for deciding on new policies and capital acquisitions for the three services (Army, Navy and Air Force) and the Indian Coast Guard.
- The Minister of Defence is the Chairman of the Council.
- It was formed, after the Group of Ministers recommendations on 'Reforming the National Security System', in 2001, post Kargil War (1999).

7.3. IAF gets Apache attack helicopters from Boeing

Context: Recently, Boeing has handed over the last of the five AH-64E Apache attack helicopters to the Indian Air Force (IAF).

- The handover was slightly delayed due to the Covid-19 induced lockdown.
- Earlier, Boeing handed over the last five of the 15 CH-47F(I) Chinook heavy-lift helicopters to the IAF as well.

More Details:

- India contracted 22 Apache helicopters and 15 Chinook helicopters from Boeing through the Foreign Military Sales programme of the USA government in September 2015 under a USD 3 billion deal.
- The addition of both these helicopters is a significant step towards modernization of IAF's helicopter fleet.

AH-64E Apache Attack Helicopter:

- These are all-weather capable, easily maintainable helicopters and have high agility and survivability against battle damage.

Capabilities:

- Carry out precision attacks at standoff ranges and operate in hostile airspace with threats from the ground.
- Transmit and receive battlefield pictures through data up-linking and networking.
- Shoot fire and forget anti-tank guided missiles, air to air missiles, rockets while providing the versatility to helicopter in network-centric aerial warfare.
- Carries fire control radar, which has a 360° coverage and nose-mounted sensor suite for target acquisition and night vision systems.
- Boeing's joint venture in Hyderabad, Tata Boeing Aerospace Limited, has been producing aero-structures for the AH-64 Apache helicopter for both the USA Army and international customers.

15 CH-47F(I) Chinook Heavy-lift Helicopters:

- It is capable of airlifting diverse military and non-military loads into remote locations.
- It has a fully integrated digital cockpit management system, advanced cargo handling capabilities and electronic warfare suite that complement the aircraft's performance.
- The helicopter has been customized to suit IAF's future requirements and capability roadmap.
- These are deployed in the Northern and Eastern regions of India.
- Boeing's suppliers in India are manufacturing critical systems and components for the Chinooks, including the crown and tail cone assembly by the Tata Advanced Systems and the ramp and aft pylon by Dynamatic Technologies.

7.4. NATGRID gets access to data from 14,000 police stations

Context:

The National Intelligence Grid has signed an MoU with the National Crime Records Bureau (NCRB) to access the centralised online database on FIRs and stolen vehicles.

Details:

- The MoU will give NATGRID access to the Crime and Criminal Tracking Network and Systems database, a platform that links around 14,000 police stations.
- At present, security agencies directly contact an airline or a telephone company if they are on a suspect's trail. The data is shared through international servers. The NATGRID will ensure that such information is shared through a secure platform.
- Once NATGRID is operational, all agencies will have to route their requests through the secured platform. However, the State police will not be part of NATGRID and they could directly contact the airlines or railways for information.

NATGRID

- First conceptualised in 2009, NATGRID seeks to become the one-stop destination for security and intelligence agencies to access databases related to immigration entry and exit, banking and telephone details of a suspect on a "secured platform".
- The data will be procured by NATGRID from 21 organisations such as telecom, tax records, bank, immigration, etc.
- NATGRID will act as a link between intelligence and investigation agencies.
- The project aims to go live by December 31, 2020.

Issues:

- On the concern raised of the MoU that it would infringe on the federal system of the Constitution, an official said that since the NCRB under the Union government is only a repository and the data pertaining to FIRs of a particular police station are a State subject, it does not violate any legal provisions as FIRs are shared with all the police stations.

- Earlier the Civil Aviation Ministry and airline companies had raised concerns in providing information to yet another agency — NATGRID.
- The airlines contended that they already provide information to the Bureau of Immigration and the Customs authorities. The deliberations with the airlines are still on.

7.5. Permanent Commission to Women Officers in Army

Context:

The Ministry of Defence (MoD) has issued the formal Government Sanction Letter for grant of Permanent Commission (PC) to women officers in the Army.

What is a Permanent Commission?

- A Permanent Commission (PC) means a career in the army until one retires.
- If one gets selected through PC, one has the option to serve the country up to the full age of retirement.

Background:

- The case was first filed in the Delhi High Court by women officers in 2003 and had received a favourable order in 2010.
- However, the order was never implemented and was challenged in the Supreme Court by the government.
- In its appeal, the government cited "physical" and "physiological limitations" in granting command positions to women.
- In the February 2019 policy statement, the Government endorsed the PC for SSC women officers in 10 streams of the 'Combat Support Arms' and 'Services' sections.
- However, it was said that the women officers would not be offered any command appointments, and would serve only in staff posts.
- In February 2020, the SC held that there is a need for an administrative will and 'change of mindset' and directed the government to grant PC and command postings in all services other than combat to women Army officers.

Government's order

- The government's order specifies the grant of PC to Short Service Commissioned (SSC) women officers in all the 10 streams of the Army in which they presently serve.
- The same procedure for male SSC officers will be followed for women to give PC.
- The order follows a Supreme Court verdict in February 2020.

Supreme Court verdict

- About 322 women officers had approached the apex court on the issue of PC.
- The court directed the government to ensure that women officers, irrespective of their years of service, are granted PC in the army.
- The issue of command postings came up in the discussion on subsequent avenues after the grant of PC.
- In its appeal, the government cited "physical" and "physiological limitations" in granting command positions to women offers.
- To this, the Supreme Court said there was need for administrative will and "change of mindset" in this regard.
- The court thus added that the woman officers would be eligible for command posting.

- The SC bench observed that there could not be absolute exclusion of women officers for command assignments, and that they should be considered on a case-by-case basis.

Significance

- The Army is often seen as the preserve of men.
- But enough women have fought heroic battles to bust that myth.
- From Rani of Jhansi in the past to Squadron Leader Minty Agarwal of the Indian Air Force, there are many to cite.
- [Minty Agarwal, in 2019, was part of the team that guided Wing Commander Abhinandan Varthaman during the Balakot airstrike carried out by the IAF.]
- But the battle to break a gender stereotype and provide equal opportunities for women in the Army had to be fought right up to the Supreme Court.
- The government initially did not take serious a Delhi High Court ruling in the litigants' favour 10 years ago.
- Then in the Supreme Court, the litigants concerns were evident with the views expressed by the government.
- The government pointed at "physiological limitations" of women officers.
- These were cited as great challenges for women officers to meet the exigencies of service.
- But this misogyny was called out by the Supreme Court, which directed for equal treatment.
- Given this past, the present decision will go a long way in ending a prejudice associated with the Army.

way forward

- Elsewhere in the world, in countries such as the US and Israel, women are allowed in active combat.
- In India, the Supreme Court had to forcefully nudge the government to make women's role in the Army more inclusive.
- Of the 40,825 officers serving in the Army, a mere 1,653 are women.
- The overall percentage of women at all levels of the armed forces needs to be increased.
- To usher in a change in a regressive mindset prevalent in the society, a lot more must be done on gender sensitisation.
- A gender barrier may have fallen, but the war against inequity has a long way to go.

7.6. Induction of French Rafale Aircrafts in IAF

Context:

- Recently, Indian Air Force (IAF) has received its first batch (5 out of 36) of French Rafale aviation combat aircraft at Ambala Air base (Haryana).
- The Rafales are India's first major acquisition of fighter planes in 23 years after the Sukhoi jets were imported from Russia.
- All the 36 jets will be delivered to India by the end of 2021.

Significance For India:

- **Joint Strategic Vision:** The Rafale would be an aid to the Joint Strategic Vision of India-France Cooperation in the Indian Ocean Region to curb over-flights and the threat of weapons of mass destruction in the area.

- **Upgradation of Air Combat Capabilities:** It will significantly bolster India's air combat capabilities especially when it is facing hostile neighbours like Pakistan and China.
- **Unmatched Capabilities:** The aircraft proved its unmatched capabilities in air combat missions in Afghanistan, Libya, Mali, Iraq and Syria in the last few years.
- India is the fourth country to have the strategic platform with Rafale after France, Egypt and Qatar.
- The Indian Air Force is also in the process of procuring a new generation medium-range modular air-to-ground weapon system Hammer to integrate with the Rafale jets. The Hammer (Highly Agile Modular Munition Extended Range) is a precision-guided missile developed by French defence major Safran.
- **Game Changer:** Rafales could be a game-changer for India after all the 36 jets join the Indian Air Force as no aircraft in possession of any country in the neighbourhood will be able to match their superior kinematic performance and powerful electronic warfare systems.
- The Rafale jet is often compared with the USA stealth F-35 aircraft and F-22.
- Border Clash with China: It is much more advanced and lethal than the current fighter aircraft available with China i.e.jet J-20. Therefore, it is definitely a boost to India's defence preparedness especially at the times of border clash with China.

TOI
RAFALE'S flight plan to India
Sept 2016
India orders 36 Rafale fighter jets from France at a cost of around Rs 58,000cr
Oct 8, 2019
Defence minister Rajnath Singh receives first Rafale jet in France
May 2020
First batch of four Rafale jets to come to India
Ist squadron will be deployed at Ambala air force station
2nd squadron will be stationed at Hasimara base in West Bengal
Rafale will come with some India-specific modifications
Israeli helmet-mounted displays
Radar warning receivers
Low band jammers
10-hour flight data recording
Infra-red search
Tracking systems
Source: News reports

8. Disaster Management

8.1. Mizoram quake zone caught between two geological faults

Context:

A geologist assigned to make a preliminary study on the frequent tremors in Mizoram has said that Mizoram's zone of scary earthquakes is caught between two subterranean faults.

Background:

- Mizoram experienced at least eight moderate earthquakes between June 21 and July 9, 2020. The tremors ranged from 4.2 to 5.5 on the Richter scale.
- The epicentre of most of these quakes was beneath Champhai district bordering Myanmar, including the last one of magnitude 4.3 and about 10 kilometres deep.
- A few were beneath the adjoining Saitual and Serchhip districts.

Details:

- According to the geologist, earthquakes have happened and will happen in that part of Mizoram because it is caught between two geological faults i.e, the Churachandpur Mao Fault and the Mat Fault.
- The Churachandpur Mao Fault is named after two places in Manipur and runs north-south into Myanmar along the border of Champhai.
- The Mat Fault runs northwest-southeast across Mizoram, beneath the river Mat near Serchhip.
- There are several shallower transverse or minor faults in between these two major faults that are deeper.
- People there have nothing to worry about if their magnitude does not measure above 5 on the Richter scale.

- Faults are discontinuities or cracks that are the result of differential motion within the earth's crust.
- It is a fracture or zone of fractures between two blocks of rock.
- Faults allow the blocks to move relative to each other. This movement may occur rapidly, in the form of an earthquake.
- Vertical or lateral slippage of the crust along the faults causes an earthquake

8.2. Seismicity Study of Arunachal Himalaya

Context: Recently, a study by the Wadia Institute of Himalayan Geology (WIHG), pertaining to the exploration of the elastic properties of rocks and seismicity in Arunachal Himalaya, has revealed that the area is generating moderate earthquakes at two different crustal depths.

- WIHG is an autonomous institute of the Department of Science & Technology (DST), Government of India.
- The region has been placed into Seismic Zone V, thus most vulnerable to earthquakes.

More Details:

- WIHG has installed 11 broadband seismic stations (connected through the Global Positioning System) along the Lohit River Valley of Arunachal Himalaya to understand the elastic properties of rocks and seismicity in the easternmost part of India.
- It used both teleseismic (earthquakes that occur more than 1000 km from the measurement site) and local earthquake data with the help of seismometers.
- A seismometer is an instrument that responds to ground motions, such as caused by earthquakes, volcanic eruptions, and explosions.

Latest Findings:

- **Two Different Crustal Depths:** Low magnitude earthquakes are concentrated at 1-15 km depth, whereas slightly higher than 4.0 magnitude earthquakes are mostly generated from 25-35 km depth.
- The intermediate-depth is devoid of seismicity and coincides with the zone of fluid/partial melts.
- **High Poisson's Ratio:** Extremely high Poisson's ratio was also obtained in the higher parts of the Lohit Valley, indicating the presence of fluid or partial melt at crustal depths.
- Poisson's ratio is a measure of the Poisson effect that describes the expansion or contraction of a material in directions perpendicular to the direction of loading.
- A high Poisson's ratio denotes that the material exhibits large elastic deformation, even when exposed to small amounts of strain.

Underthrusting of the Indian Plate:

- Himalaya is a result of collision between the Indian and the Eurasian plates about 50-60 million years ago. Due to continuous underthrusting of Indian plate beneath the Eurasian plate, stresses are increasing and accumulating progressively in the Himalayas.
- The Eurasian Plate is a tectonic plate which includes most of the continent of Eurasia (a landmass consisting of the traditional continents of Europe and Asia), with the exceptions of the Indian subcontinent, the Arabian subcontinent, and the area east of the Chersky Range in East Siberia.
- This process keeps modifying the drainage patterns and landforms and is the pivotal reason for causing an immense seismic hazard in the Himalayan mountain belt and adjoining regions, necessitating assessment and characterization of earthquakes in terms of cause, depth and intensity.

- **The Tuting-Tidding Suture Zone:** TTSZ is a major part of the Eastern Himalaya, where the Himalaya takes a sharp southward bend and connects with the Indo-Burma Range.
- This part has gained importance in recent times due to the growing need of constructing roads and hydropower projects, therefore emphasising the need for understanding the pattern of seismicity in this region.

- **Crustal Thickness:** The crustal thickness in this area varies from 46.7 km beneath the Brahmaputra Valley to about 55 km in the higher elevations of Arunachal, with a marginal uplift of the contact.
- This marginal uplift defines the boundary between crust and the mantle, technically called the Moho discontinuity.
- The Moho discontinuity has been defined by the distinct change in velocity of seismological waves as they pass through changing densities of rock.

9. Environment

9.1. Botswana reports mysterious deaths of elephants

Context: Mystery surrounds the "completely unprecedented" deaths of hundreds of elephants in Botswana over the last two months.

More Details:

- A cluster of elephant deaths was first reported in the Okavango Delta in early May, with 169 individuals dead by the end of the month. By mid June, the number had more than doubled, with 70% of the deaths clustered around waterholes.
- The landlocked country has the world's largest elephant population, estimated at 130,000.
- There are about 15,000 elephants in the delta, 10% of the country's total. Eco-tourism contributes between 10-12% of Botswana's GDP, second only to diamonds.

Cause for Death:

- The dead elephants were first spotted months ago in the Okavango Panhandle region, and the authorities say they have since been trying to discover the cause. Poaching has been ruled out as the cause of death, as the carcasses were found intact.

Okavango Delta:

- It is one of the very few major interior delta systems that do not flow into a sea or ocean.
- This delta comprises permanent marshlands and seasonally flooded plains.
- The delta covers part of Kalahari Desert and owes its existence to the Okavango (Kavango) River.
- It is home to some of the world's most endangered species of large mammal, such as the cheetah, white rhinoceros, black rhinoceros, African wild dog and lion.

Botswana:

- It is a landlocked country in Southern Africa.
- Its 70% territory is covered by Kalahari Desert.
- Botswana has the world's largest elephant population, estimated to be around 130,000.
- It is Africa's oldest continuous democracy.

9.2. World Bank Enhances Support for Rejuvenating the Ganga

- The World Bank enhanced its support for the Government of India's program to rejuvenate the Ganga River with a $400 million operation that will help stem pollution in the river, and strengthen the management of the river basin which is home to more than 500 million people.

- The Second National Ganga River Basin Project (SNGRBP), approved by the World Bank's Board of Executive Directors, will support the government's Namami Gange program and its long-term vision for controlling pollution in the river and restoring its water quality.
- The World Bank has been supporting the government's efforts since 2011 through the ongoing National Ganga River Basin Project, which helped set up the National Mission for Clean Ganga (NMCG) as the nodal agency to manage the river, and financed sewage treatment infrastructure in several riverside towns and cities.

- The Ganga Basin covers a quarter of India's landmass, and is a critical economic and environmental resource for the country.
- It provides over one-third of India's surface water, includes the country's largest irrigated area and is key to India's water and food security. Over 40 percent of India's GDP is generated in the densely populated basin.

9.3. Rare Orchids in India

Context: Recently, two rare orchid species i.e. Tiger orchids (Grammatophyllum speciosum) and Ground orchids (Eulophia obtusa) have been found to be blooming in different parts of the country after a gap of many years.

More Details:

Tiger Orchid:

- Scientific Name: Grammatophyllum speciosum
- Characteristics: It has large and resplendent flowers which resemble the tiger skin.
- It flowers in alternate years and remains in bloom for about a month.
- **Geographical Distribution:** These epiphytic plants are not native to India, and are endemic to southeast Asia i.e.Indonesia and Philippines.
- An epiphyte grows on the surface of a plant and derives its moisture and nutrients from the air, rain, water or from debris accumulating around it.
- It is found to be in full bloom at the Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI) Kerala, where it was introduced in the 1990s.

Ground Orchid:

- Scientific Name: Eulophia obtusa
- Rediscovery: It has been rediscovered in Dudhwa Tiger Reserve, Uttar Pradesh after 118 years.
- It was last recorded in Pilibhit, Uttar Pradesh in 1902.
- Geographical Distribution: The species is originally from Uttarakhand.
- It was collected by botanists from Gangetic plains but there have been no sightings in the past 100 years. In 2008, the plant species was sighted in Bangladesh for the first time.
- Characteristics: It has white flowers and bright pink hues.
- Protection Status: Listed as "critically endangered" in the International Union for Conservation of Nature (IUCN) Red List of endangered species.

9.4. Ophiocordyceps Nutans Fungi

Context:

Recently, researchers have found Ophiocordyceps nutans (fungi) for the first time in central India, while setting out on a plant survey at the Kanger Valley National Park in Bastar, Chhattisgarh.

Key Points

- ***Ophiocordyceps nutans*** host on a specific insect, *Halyomorpha halys.*
  - ***Halyomorpha halys*** is commonly known as the **stink bug** and is a **pest to forest trees and agricultural crops.**
  - The stink bug is known to **damage the flower and fruits** of soybean, green beans, apple, pear, etc.
- **Mechanism:**
  - The fungi infect the insect when alive and develop **fungal mycelium** (the vegetative part of a fungus) inside its **thorax** (chest).
  - The **spores** (single-celled reproductive units) **sprout out** from between the insect's thorax and head, **killing the insect** but it continues to take nutrition from the dead body.
  - The fungi are very **host-specific,** so the spores travel and infect stink bugs only.
- **Importance:**
  - Studies have shown that these fungi can be **used as a biological pest control agent** against the stink bugs.
    - Exploring these fungi as a pesticide will help **reduce the harmful effect of chemicals** in fields.
  - Several species of the Ophiocordyceps fungi have **medicinal properties.**
    - Reports show that **China has been traditionally using** it.
    - In the **Western Ghats,** the local people use these fungi as an **immune stimulator.**
  - These are rich in **biologically active metabolites, vitamin C, phenolic compounds** (disinfectant in household cleaners), and also have **anti-inflammatory** and **antioxidant properties.**
  - Scientists claim that it contains a component called **'cordycepin'** which has **anti-cancer properties.**

9.5. Dehing Patkai Wildlife Sanctuary

Context:

The **Assam** government has decided to **upgrade** Dehing Patkai Wildlife Sanctuary **into a National Park.**

MrShashank AKS IAS

- The announcement comes just months after the **National Board of Wildlife (NBWL)** gave conditional clearance to a coal mining project by Coal India Limited (CIL) in the Dehing Patkai Elephant Reserve.

More Details:

- As a national park, its importance will increase and new rules will bring increased vigilance to the area. While the first proposal to accord national park status to the region dates back to 1995, **Dehing Patkai was declared a wildlife sanctuary in 2004.**
- **Description:** Dehing Patkai Wildlife Sanctuary is located within the **larger Dehing Patkai Elephant Reserve,** which spreads across the coal- and oil-rich districts of **Upper Assam (Dibrugarh and Tinsukia districts).**
    - The Dehing Patkai Wildlife Sanctuary is also known as the **Jeypore Rainforest.**
    - Dehing is the **name of the river** that flows through this forest and **Patkai is the hill** at the foot of which the sanctuary lies.
    - The **oldest refinery of Asia in Digboi** and 'open cast' coal mining at Lido are located near the sanctuary.
    - It is famous for **Assam Valley Tropical Wet Evergreen Forests** bordering Arunachal Pradesh.
- **Fauna:** Rare fauna found in the region include **Chinese pangolin**, flying fox, wild pig, sambar, barking deer, gaur, serow and Malayan giant squirrels.
    - It is the only sanctuary in India which is home to **seven different species of wild cats** - tiger, leopard, clouded leopard, leopard cat, golden cat, jungle cat and marbled cat.
    - **Assamese macaque,** a primate found in the forest, is in the red list of **Near Threatened species.**
    - It has the highest concentration of the **rare endangered White Winged Wood Duck.**
- **Flora:** Dehing Patkai is a deciduous rainforest interspersed with semi-evergreen and lush green flora.
- **Sixth National Park:** Post upgradation, Dehing Patkai will be the **sixth national park in Assam** — the other five being **Kaziranga**, Nameri, **Manas**, **Dibru-Saikhowa** and Rajiv Gandhi Orang National Park.

9.6. Drop in Dolphin numbers in Chambal River

Context:

Recently, the Madhya Pradesh forest department has prepared the latest census report which states that the dolphins' number in Chambal river has been reduced in four years.

Key Highlights of the Report

- There are just 68 dolphins left in 435-kilometre-long Chambal river sanctuary.
- The dolphins' number in Chambal river has been reduced by 13 per cent in four years i.e. from 78 dolphins in 2016 to 68 in 2019.

Reasons for Declining number of Dolphins in Chambal River

- Illegal Sand Mining: The illegal sand mining and consumption of water is rising rampantly and putting the whole ecosystem of the river in danger.
- Illegal Sand Mafia: The forest teams face so many life threatening attacks while taking actions against illegal sand mafia.

- Poaching: The increased incidents of poaching have led to significant decrease in dolphins' numbers in Chambal River.
- Lack of Studies on Dolphin: The dolphin is a sensitive animal and there is lack of availability of studies on dolphins.

About Gangetic Dolphin

- It is a rare species of dolphins i.e. platanista gangetica.
- It is listed as 'Endangered' under IUCN Red List of Threatened Species.
- It has rudimentary eyes i.e. from preying to surfing, dolphins do it through ultrasonic sound.
- It once lived in the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu river systems of Nepal, India and Bangladesh.
- It can only live in freshwater and protected under Schedule I of the Wildlife Protection Act (1972).
- Vikramshila Gangetic Dolphin Sanctuary (VGDS) in Bihar's Bhagalpur district is India's only sanctuary for dolphins.

9.7. Melghat Tiger Reserve

Context:

- The Chief Minister of Maharashtra has requested the Union government for considering an alternative alignment for the Akola-Khandwa rail line that passes through the Melghat Tiger Reserve.

More Details:

Location:

- It lies in Melghat Forests of Amravati district in Vidarbha region of Maharashtra bordering Madhya Pradesh in the North and East.
- It is a part of the Satpura-Maikal landscape.

Tiger Reserve:

- It is spread over an area of 2768.52 sq km.
- It is among the first nine places in the country designated as tiger reserves in 1973-74.
- Project Tiger was launched in 1973.
- It was the first Tiger Reserve to be declared in the State of Maharashtra.

Protected Areas within the Reserve:

- It consists of Gugamal National Park, Wan, Ambawarba and Narnala sanctuaries.

Features:

- It is the Deccan trap and underlying rock is basalt in one form or another.
- It has various species of mammals including Tiger, Leopard, Sloth bear, Gaur, etc.
- The forests are of deciduous nature and have been classified as 'dry deciduous forests'. Most prominent is Teak.
- It forms a very important catchment to Tapi river systems.
- The Korku tribe adds to the cultural diversity of the Reserve.

10. History - Art & Culture

10.1. Bon Bibi: Sundarban

Context:
A centuries-old folk theatre form and the worship of a forest goddess i.e. Bon Bibi has helped the natives of the Sundarban survive by understanding the power of nature and the limits of human needs.

More Details:

- **Bon Bibi:** Bon Bibi is a deity of the forest and the central character of Bon Bibir Palagaan, a musical drama unique to the Sundarbans.
- Shrines to Bon Bibi and her twin brother Shah Jongoli dot the landscape of the Sundarbans.
- The followers of Bon Bibi are fishermen, crab-collectors and honey-gatherers — a large chunk of the population of the islands, many of them impoverished — who go into the wild mangroves, teeming with wild animals such as tigers and crocodiles, to earn a livelihood. They believe that only Bon Bibi protects them when they enter the forest..

Bon Bibir Palagaan: People express their belief in Bon Bibi through Bon Bibir Palagaan, a dramatic storytelling form that is enacted throughout the island.

- One of the important ways in which people express their belief in Bon Bibi is through Bon Bibi'r Palagaan, a dramatic storytelling form that is enacted throughout the island. The Sundarbans boasts of almost 30 troupes, each performing the plays in various islands through the year and at tourist lodges during the peak September-March season.

Significance:

- An unwritten code believed to be given by the deity prohibits islanders from carrying guns or weapons into the forest.
- They must enter the forest only if they absolutely need to earn a livelihood and not take more — honey or crabs, fish or prawns — than they need.
- They must not pollute the forest in any way, by smoking, defecating or washing utensils.
- According to a local lore, poachers, pirates and those who disobey Bon Bibi are attacked by tigers as punishment.

Sundarbans

- The Sundarbans is a mangrove area in the delta formed by the confluence of the Ganges, Brahmaputra and Meghna Rivers in the Bay of Bengal.
- It spans from the Hooghly River in India's state of West Bengal to the Baleswar River in Bangladesh.
- The active delta region is among the largest in the world, measuring about 40,000 sq km.
- India's Sundarban was declared as the UNESCO'S World Heritage site in 1987.
- Sunderban Wetland has been accorded the status of 'Wetland of International Importance' under Ramsar Convention in 2019.
- Sunderbans Biosphere Reserve (National Park) is an Important Bird Area under Birdlife International.
- The area is known for many rare and globally threatened wildlife species such as the estuarine crocodile (Crocodylus porosus), royal Bengal tiger (Panthera tigris), Water monitor lizard (Varanus salvator), gangetic dolphin (Platanista gangetica), and olive ridley turtle (Lepidochelys olivacea).
- Sajnekhali Bird Sanctuary is a part of Sundarban and is famous for the sight of rare birds.

Syncretic tradition

- Hindus and Muslims worship Bon Bibi equally. Legend has it that Bon Bibi came to the Sundarbans with her twin, Shah Jongoli, from Saudi Arabia.
- The Bon Bibi'r Johuranama (Chronicles of Bon Bibi's Greatness), a 19th-century text, is written in Bengali script, but with the book opening to the right, in Arabic style.

10.2. Dhamma Chakra Day

Context:

- The **International Buddhist Confederation (IBC)** in partnership with the Ministry of Culture, Government of India will celebrate the **Asadha Poornima on July 4, 2020, as Dharma Chakra Day.** It will be the annual flagship event of IBC.
- The **Central Tibetan Administration** also has asked Tibetan Buddhists to participate in the online event in large numbers to support and appreciate.

More Details:

- This move comes after a successful hosting of Virtual Vesak and Global Prayer Week from May 7 to 16, 2020, by the International Buddhist Confederation (IBC).
- The event will **celebrate the historical legacy of India** being the land of Buddha's enlightenment and awakening, his turning of the **wheels of Dhamma, and Mahaparinirvana.**
- **Asadha Poornima-** It falls on the first full moon day of the month of Asadha as per Indian sun calendar.

- It is also known as Esala Poya in Sri Lanka and Asanha Bucha in Thailand.

- It is the **second most sacred day** for **Buddhists after the Buddha Poornima or Vesak.** It marks Buddha's first teaching after attaining Enlightenment to the first five ascetic disciples (pañcavargika) on the full-moon day of Asadha at 'Deer Park', Ṛiṣipatana in the current day Sarnath, near Varanasi, India.
- The **Rainy Season retreat (Varsha Vassa)** for the Monks and Nuns also starts with this day lasting for three lunar months from July to October, during which they remain in a single place, generally in their temples dedicated to intensive meditation.
- This day is also observed as Guru Poornima by both Buddhists and Hindus as a day to mark reverence to their Gurus.

Buddhist Diplomacy:

- The celebration of Dharma Chakra Day is being pushed as an event to **show India's strong Buddhist heritage amid tensions with China**. It will see the virtual participation of leaders from major Buddhist countries, except China.
- China has been using its Buddhist influence even in South Asia even in India's neighbourhood, with Nepal, Sri Lanka, Bangladesh and Pakistan through **sponsorship of Buddhist activities.**
- The timing of the event is particularly important because this is when both countries would like to resurrect their linkages with others. To show that like-minded countries are coming together sends across a message. What is however important is that one has to put in the sustained effort at this, and have a relook at **India-China policy with strategic cultural moves.**
- **Buddhist diplomacy** should be **integral to India's China policy,** as one of the strongest points India has is the roots and familiarity with Buddhist traditions.

10.3. The language of the Tangams, with just 253 speakers

Context:

- Recently, the Chief Minister of Arunachal Pradesh has released a book titled "Tangams: An Ethnolinguistic Study Of The Critically Endangered Group of Arunachal Pradesh".
- The book has valuable data on endangered oral narratives like ritual songs, lamentation songs, lullabies and festival songs in Tangam language spoken by the Tangam community, which has reportedly 253 speakers left now.

More Details:

Tangam People:

- It is a little-known community within the larger Adi tribe of Arunachal Pradesh which resides in the hamlet of Kugging in Upper Siang district's Paindem circle.
- For long, the only account of the Tangams could be found in a book, "Tangams" (1975) where the community's population was pegged at 2,000 spread across 25 villages.

Tangam Language:

- Tangam is an oral language that belongs to the Tani group, under the greater Tibeto-Burman language family.
- It has been marked 'critically endangered' by the UNESCO World Atlas of Endangered Languages (2009).

Reasons for only 253 speakers:

- **As per the UNESCO** World Atlas of Endangered Languages (2009), Tangam - an oral language that belongs to the Tani group, under the greater Tibeto-Burman language family - is marked '**critically endangered**'.
- **Became multilingual:**
    - Kugging is surrounded by a number of villages inhabited by Adi subgroups such as Shimong, Minyongs, as well as the Buddhist tribal community of Khambas, among others.
    - To communicate with their neighbours over the years, the Tangams have become multilingual.
    - They rarely speak their own language now since their population is restricted to a single village.
- **Relatively unknown:** Even within Arunachal Pradesh and the village lacks proper infrastructure in all basic sectors. Roads have reached Kugging only in 2018 and not a single person from the community has gone to university.

Endangered Language: An endangered language is a language that is at risk of falling out of use, generally because it has **few surviving speakers**. If it loses all of its native speakers, it becomes an extinct language.

- **UNESCO defines four levels of language endangerment** between "safe" (not endangered) and "extinct".

	Degree of endangerment	Intergenerational Language Transmission
	safe	language is spoken by all generations; intergenerational transmission is uninterrupted >> not included in the Atlas
	vulnerable	most children speak the language, but it may be restricted to certain domains (e.g., home)
	definitely endangered	children no longer learn the language as mother tongue in the home
	severely endangered	language is spoken by grandparents and older generations; while the parent generation may understand it, they do not speak it to children or among themselves
	critically endangered	the youngest speakers are grandparents and older, and they speak the language partially and infrequently
	extinct	there are no speakers left >> included in the Atlas if presumably extinct since the 1950s

Languages of Arunachal Pradesh

- There has been no systematic, scientific or official survey on the number of languages in Arunachal Pradesh till recently.
- An official linguistic survey by the state government began only in 2018, which is currently underway.
- Before that, People's Linguistic Survey of India was published in 2017.
- According to experts, there are around 32-34 languages with a disclaimer that it is not a conclusive figure.
- If various linguistic varieties or dialects embedded within these languages are enlisted then the numbers can go up to 90.
- The languages of Arunachal Pradesh have been classified under the Sino-Tibetan language family and more specifically under the Tibeto-Burman and Tai group of languages, such as Lolo-Burmish, Bodhic, Sal, Tani, Mishmi, Hruissh and Tai.
- The education system introduced Devanagari, Assamese and Roman scripts for most tribal languages but new scripts such as Tani Lipi and Wancho Script have been developed by native scholars as well.

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11. Government Initiatives

11.1. Loan Agreements between Government of India and World Bank

Context:

The Government of India, the Government of Tamil Nadu and the World Bank signed legal agreements to help low-income groups in the state of Tamil Nadu get access to affordable housing.

Details:

- The legal agreements were signed for two projects – $200 million **First Tamil Nadu Housing Sector Strengthening Programme** and $50 million **Tamil Nadu Housing and Habitat Development Project** – to strengthen the state's housing sector policies, institutions, and regulations.
- Nearly half of Tamil Nadu's population is urban, and this is expected to increase to 63 percent by 2030. An estimated 6 million people are currently living in slums (representing 16.6 percent of the state's urban population).
- **First Tamil Nadu Housing Sector Strengthening Programme:**
    - This programme supports the government's ongoing efforts to increase the availability of affordable housing by gradually shifting the role of the state from being the main provider to an enabler.
    - It will also aim to unlock regulatory barriers and incentivise private sector participation in affordable housing for low-income families.
- **Tamil Nadu Housing and Habitat Development Project:**

- This project will support innovations in housing finance and strengthen housing sector institutions in the state.
- It will finance the newly created Tamil Nadu Shelter Fund (TNSF) – an innovation in housing finance in India – by providing an equity contribution of $35 million.
- This initial support to TNSF will enable cross-subsidisation opportunities where higher returns from commercial and high-income developments will compensate for lower returns from affordable housing.
- This will make affordable housing commercially viable for potential investors.
- The project will also strengthen the capacity of key housing institutions including the Tamil Nadu Slum Clearance Board, the state's main provider of affordable housing; Chennai Metropolitan Development Authority, the land use planning authority for the Chennai Metropolitan Area; and Tamil Nadu Infrastructure Fund Management Corporation Limited, the asset management company of TNSF.

- The loans of $200 million and $50 million from the International Bank for Reconstruction and Development (IBRD) have a maturity of 20 years including a grace period of 3.5 years.

11.2. Nekar Samman Yojane

- The Chief Minister of Karnataka B.S. Yediyurappa has launched a scheme for the weaver's community in the state of Karnataka on 6th July 2020. The name of the scheme is 'Nekar Samman Yojane', which means Weaver Samman Yojana.
- As per the 4th All India Handloom Census (conducted in 2019-20), there are 54,789 handloom weavers registered in the state of Karnataka.
- For becoming a beneficiary of the scheme, silk, cotton, woolen and other handloom weavers in the state of Karnataka have to register themselves at the Seva Sindhu portal (an initiative to deliver the various schemes and services of the Karnataka State Government at the doorstep of the citizens).
- Under the scheme, the state government is transferring Rs 2000 of financial support to all weavers in the state registered with the Seva Sindhu portal. Under the first phase, the Chief Minister at the launch transferred Rs 2000 directly into the bank accounts of 19744 weavers in the state.

11.3. Accelerate Vigyan Scheme

Context:

- Recently, the Science and Engineering Research Board (SERB), has launched a scheme called Accelerate Vigyan (AV) to strengthen scientific research mechanisms in the country.

More Details:

- **Objective:** To give more thrust on encouraging high-end scientific research and preparing scientific manpower, which can lead to careers in research and knowledge-based economy.
- **Vision:** To expand the research base, with three broad goals i.e. consolidation/aggregation of all scientific programs, initiating high-end orientation workshops, and creating opportunities for research internships.

Components:

- **ABHYAAS Programme:** Under it, AV is inviting applications for the winter season (December 2020-January 2021).
    - It is an attempt to boost research and development in the country by enabling and grooming potential PG/PhD students by means of developing their research skills in selected areas across different disciplines or fields.
    - It has two components: High-End Workshops i.e. KARYASHALA and Research Internships i.e. VRITIKA.
    - This is especially important for those researchers who have limited opportunities, access to facilities and infrastructure.

SAMMOHAN: It has been sub-divided into SAYONJIKA and SANGOSHTI.

SAYONJIKA is an open-ended program to catalogue the capacity building activities in science and technology supported by all government funding agencies in the country.

SANGOSHTI is a pre-existing program of SERB for the organisation of workshops.

Science and Engineering Research Board

- It is a statutory body under the Department of Science and Technology, Ministry of Science and Technology established by an Act of the Parliament of India in 2009.
- It is chaired by the Secretary to the Government of India in the Department of Science and Technology and has other senior government officials and eminent scientists as members.
- It was set up for promoting basic research in science and engineering and to provide financial assistance to scientists, academic institutions, Research and Development laboratories, industrial concerns and other agencies for such research.

11.4. Central Sector Scheme of financing facility under Agriculture Infrastructure Fund

Context: The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has given its approval to a new pan India Central Sector Scheme-Agriculture Infrastructure Fund.

- The scheme shall provide a medium - long term debt financing facility for investment in viable projects for post-harvest management Infrastructure and community farming assets through interest subvention and financial support.

More Details:

- Under the scheme, Rs. One Lakh Crore will be provided by banks and financial institutions as loans to Primary Agricultural Credit Societies (PACS), Marketing Cooperative Societies, Farmer Producers Organizations (FPOs), Self Help Group (SHG), Farmers, Joint Liability Groups (JLG), Multipurpose Cooperative Societies, Agri-entrepreneurs, Startups, Aggregation Infrastructure Providers and Central/State agency or Local Body sponsored Public Private Partnership Project.
- Loans will be disbursed in four years starting with sanction of Rs. 10,000 crorein the current year and Rs. 30,000 crore each in next three financial years.
- The loans dispersed under the financing facility will carry interest subvention of 3 percent per annum up to a limit of Rs 2 crore. The interest subvention will be available for a maximum of seven years.
- The credit guarantee coverage will be provided to eligible borrowers from this financing facility under the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme for a loan up to Rs 2 crore.

11.5. Online NISHTHA Programme

Context:

- Recently, the National Initiative for School Heads and Teachers Holistic Advancement (NISHTHA) programme has been launched for the first time in online mode in the state of Andhra Pradesh.

More Details:

- Initially, the NISHTHA programme was launched in 2019 through face-to-face mode to improve learning outcomes at the elementary level in the country.
- Covid-19 pandemic situation and lockdown has affected the conduct of this programme in face-to-face mode. Therefore, NISHTHA has been customized for online mode to be conducted through Digital Infrastructure for Knowledge Sharing (DIKSHA) and NISHTHA portals.

Aim:

- National Initiative for School Heads' and Teachers' Holistic Advancement (NISHTHA) is a capacity building programme for improving the quality of school education through integrated teacher training.
- It aims to build competencies among all the teachers and school principals at the elementary stage.

Implementation:

- The functionaries (at the state, district, block level) will be trained in an integrated manner on learning outcomes, school based assessment, learner – centred pedagogy, new initiatives in education, addressing diverse needs of children through multiple pedagogies, etc.
- It is being organized by constituting National Resource Groups (NRGs) and State Resource Groups (SRGs) at the National and the State level who will be training 42 lakhs teachers subsequently.

11.6. Atal Innovation Mission (AIM) launched AIM iCREST

- Recently, NITI Aayog's Atal Innovation Mission (AIM) launched AIM iCREST – an Incubator Capabilities enhancement program for a Robust Ecosystem focused on creating high performing Startups.
- It is a first of its kind initiative for advancing innovation at scale in India.

About:

- India needs world-class incubators fostering world-class startups leveraging the tremendous innovation talent of the country.
- India has a great opportunity in its inherent innovative mindset to capture global markets while creating disruptive solutions for the challenges within the country.
- In the current pandemic crisis, the effort will focus on supporting start-up entrepreneurs in knowledge creation and dissemination as well as in developing robust and active networks.

AIM iCREST:

- It has been designed to enable the incubation ecosystem and act as a growth hack for AIM's Atal and Established incubators across the country.
- Under the initiative, the AIM's incubators are set to be upscaled and provided requisite support to foster the incubation enterprise economy, that will help them to significantly enhance their performance and will be complemented by providing training to entrepreneurs, through technology-driven processes and platforms.
- This programme is unique also in its design as it is a combination of interactive practices in the field of incubation; enabling the incubators to support sustainable and successful startups
- Implementation- AIM has joined hands with Bill & Melinda Gates Foundation and Wadhwani Foundation – organizations that can lend credible support and expertise in the entrepreneurship and innovation space.
- The partnerships will provide global expertise and showcase proven best practices to the AIM's incubator network.
- This programme is unique also in its design it is a combination of interactive practices in the field of incubation; enabling the incubators to support sustainable and successful startups.

12. Persons in News

12.1. Injeti Srinivas

- Retired 1983 batch Indian Administrative Service (IAS) officer from the Odisha Cadre- Injeti Srinivas has been appointed as the 1st Chairman of the International Financial Services Centre Authority (IFSCA).
- Injeti Srinivas has retired as the Secretary of the Ministry of Corporate Affairs on 31st May 2020. He has been appointed for a period of three years as the Chairman of International Financial Services Centre Authority.

12.2. Sahil Seth

- The Deputy Commissioner of Mumbai Customs Sahil Seth was appointed as the honorary adviser of steering committee for BRICS Chamber of Commerce and Industry (CCI).
- The BRICS Chamber of Commerce and Industry is a parent organization that promotes commerce and industry in BRICS. It was founded in 2012. The main objective of the BRICS CCI is to create support system to MSME segment.
- The BRICS CCI mainly aims to reach out young entrepreneurs. It proposes to champion their business and act as voice of young entrepreneurs.

12.3. Arun Kumar

- Shri Arun Kumar was nominated as the Vice-Chairman of the International Union of Railways. Shri Vinod Kumar Yadav is the chairman.
- The decision was taken at the UIC General Assembly. The International Union of Railways is also called Union Internationale Des Chemins (UIC).

- International Union of Railways was founded in 1922 with 51 members. Today there are 194 members. India is an active member of the union. It has established classification of locomotives, axle arrangements, goods wagons and coaches.

13. Awards

13.1. CogX 2020 award

- Artificial Intelligence-enabled MyGov Corona Helpdesk received two awards at the CogX 2020 is held annually in London, the UK.
- CogX is a prestigious Global Leadership Summit and Festival of AI & Emerging Technology. MyGov Corona was awarded under the categories 'Best Innovation for Covid-19 – Society' and 'People's Choice Covid-19 Overall Winner'.
- MyGov is the world's largest citizen engagement platform, which facilitates two-way communication between the government and citizens.
- In the fight against COVID-19, MyGov, Jio Haptik Technologies Limited and WhatsApp team had collaborated to develop an artificial intelligence-enabled 'MyGov Corona Helpdesk' in a record time of five days.

13.2. Gulbenkian Prize for Humanity

- The Climate Activist Greta Thunberg was awarded the Gulbenkian Prize for Humanity. She was awarded with prize money of 1 million Euros.
- The Climate Activist is to donate the prize money to organizations focused on environment and climate change. Miss Thunberg is the first person to receive the prize. She was selected among 136 nominees from 43 countries.
- The Prize is awarded annually by the Calouste Gulbenkian Foundation. It was established in 1976. The prize distribution ceremony is held in Portugal.

13.3. National Award of Excellence for Outstanding Research in Forestry

- Indian Council of Forestry Research and Education (ICFRE) awarded Kannan C S Warrier, Senior principal of Institute of Forest Genetics and Tree Breeding (IFGTB) scientist, the National Award of Excellence for Outstanding Research in Forestry for the year 2019.
- Kannan C.S. Warrier is Senior Principal Scientist at the Institute of Forest Genetics and Tree Breeding, Coimbatore.

- The award was conferred on him for releasing three productive clones of casuarina, known as kattadi and savukku, that are suitable for salt affected soils for the first time in the country.
- India has around 6.73 million hectares of salt-affected land.
- The clones he released are expected to boost ICFRE's agro forestry initiatives.
- Warrier has also been the recipient of the Rolla S Rao National Award for his extensive research on conservation of endangered sacred groves, also called koil kadu.
- The scientist in his 27 years of forestry research published 232 research articles.

13.4. Diana Award

- A 13-year-old schoolgirl from Delhi has been selected among the recipients of the 2020 Diana Award, an honour given on the birth anniversary of Princess Diana (of Wales) to youngsters for humanitarian efforts.
- She received the award for developing Recycler App, a web-based mobile application to connect users with waste-handlers. The door-to-door pick up service helps in easy disposal of recyclable waste for those who may not have the means or time to travel to drop their waste.
- The app also claims to be helpful for waste-handlers, whose earnings are usually low and are vulnerable to health issues because of improper handling of waste.
- Her work on sustainable recycling is a valuable contribution towards achieving the United Nation-mandated Sustainable Development Goals of poverty alleviation, innovation, infrastructure, responsible consumption and climate action.
- Diana Awards were established in 1999 and it is considered one of the highest accolades a young person can receive for social action or humanitarian efforts.

14. Important Days

14.1. National Doctors' Day

- National Doctors' Day is celebrated annually on 1 July. The day is observed for honoring the physician and former chief minister of West Bengal, Dr. Bidhan Chandra Roy. It is celebrated to raise awareness about the importance of doctors and their vital role in our day-to-day lives.
- Every year, the theme for Doctor's day is announced by Indian Medical Association.' The theme of National Doctor's Day 2020 is 'Lessen the mortality of COVID-19'. The theme is decided keeping in mind the larger scale issue related to the medical field and the professionals and doctors.

14.2. Dharma Chakra Day

- President of India Shri Ram Nath Kovid will inaugurate the Dharma Chakra Day from the Rashtrapati Bhavan. Prime Minister Narendra Modi is to address the celebration of Dharma Chakra Day, also known as Asaadh Poornima, on 4 July 2020.
- The day is celebrated by the Buddhists all over the world as the day of Dharma Chakra Parvattana or Turning of the Wheel of Dharma.
- The Dharma Chakra Day will be celebrated by the International Buddhist Confederation (IBC), which functions under the aegis of Union Ministry of Culture.

- The day commemorates Buddha's First Sermon to his first five ascetic disciples at the Deer Park, Rsipatana in the present-day Sarnath near Varanasi, UP.
- The day aims to emphasize the teachings of peace and justice of Lord Buddha and the Eight-Fold Path shown by Buddha to overcome the sufferings of sentient beings.

14.3. International Day of Cooperatives

- International Day of Cooperatives is observed on 4 July.
- The day is observed on the first Saturday of July every year.
- The International Day of Cooperatives is an annual celebration of the cooperative movement that takes place on the first Saturday of July since 1923.
- Since 1995, the United Nations and the International Cooperative Alliance have been setting the theme for the celebration of the Day.
- The day aims to raise awareness of cooperatives and extend the partnerships between the international cooperative movement and other organizations.
- The theme of 2020 International Day of Cooperatives 2020 is "Cooperatives for Climate Action". It focused to support the Sustainable Development Goal-13 (SDG-13) on climate action. It will focus on the cooperatives' contribution to the fight against climate change.

14.4. National Fish Farmers Day

- India celebrates 10th July every year as the "National Fish Farmers Day" to honor the fish farmers, aquapreneurs & fisher folks in recognition of their accomplishments in the field and their contribution in the growth of the fisheries sector in the country.
- National Fish Farmers Day is celebrated on 10th July every year in remembrance of scientists Dr. K. H. Alikunhi and Dr. H.L. Chaudhury who successfully demonstrated the technology of induced breeding (Hypophysation) in Indian Major Carps on 10th July, 1957 at the erstwhile 'Pond Culture Division' of CIFRI at Cuttack, Odisha (presently Central Institute of Freshwater Aquaculture, CIFA, Bhubaneswar).
- NFDB in collaboration with the NBFGR will take up the work to establish "Fish Cryobanks" in different parts of the country, which will facilitate all time availability of 'fish sperms' of desired species to fish farmers. This would be the first time in the world when "Fish Cryobank" will be established, which can bring a revolutionary change in the fisheries sector in the country for enhancing fish production and productivity and thereby increasing prosperity among the fish farmers.

14.5. World Population Day

- When the world's population reached 5 billion on 11 July 1987, it was observed as the "Five Billion Day" by the United Nations. Taking inspiration from this, the then Governing Council of the United Nations' Development Program for the first time in 1989 launched an initiative to observe 11 July as the World Population Day every year to garner world's attention towards the urgency and importance of population issues.
- This year the theme of the World Population Day 2020 is to raise awareness about safeguarding sexual and reproductive health needs and vulnerabilities of women and girls during the Covid-19 pandemic.

- As per UNFPA, about 47 million women across low and middle-income economies around the world won't have access to modern contraceptives if the global pandemic continues for another 6 months. This may lead to unintended 7 million pregnancies across the world.

14.6. World Youth Skills Day

- It is observed on 15 July with an aim to raise awareness about the importance of technical, vocational education training and the development of other skills relevant to both local and global economies.
- This year World Youth Skills Day will take place in a challenging context due to COVID-19 pandemic and lockdown measures that have led to the worldwide closure of technical and vocational training education and training (TVET) institutions, alarming the vitality of skills development.
- This year the online panel discussion will be organised focusing on skills for a Resilient Youth in the Era of COVID-19 and beyond. Various virtual events focused on the theme of "Skills for a Resilient Youth".
- Prime Minister Narendra Modi said that the coronavirus pandemic has changed the "culture" along with the "nature of the job" Addressing a digital conclave on World Youth Skills Day also presented a new mantra for the youth which will help them stay relevant in this time of Covid-19 crisis.
- The mantra to remain relevant is - skill, re-skill and up-skill. Skill - Learn a new skill and value add to things. Re-skill - Add to your skill every day by learning something new. Up-skill - Widening your skillset is upskilling yourself.

15. Sports

15.1. 2022 FIFA World Cup

- The Federation Internationale de Football Association announced that the 2022 World Cup is to be held in Qatar. The governing body also released schedule of matches.
- The 2022 FIFA World Cup will be the first world cup to be held in Arab World and also the first in a muslim-majority country. The World Cup would be the last to involve 32 teams as the teams are to be increased to 48 in 2026 tournament.
- India has never participated at the FIFA World Cup. Indian National Team ranks 108 in the latest FIFA rankings that was released in 2019.

15.2. 'Fit Hai to Hit Hai India' under Fit India Campaign launched

- In the presence of P.V Sindhu (Olympic Silver Medalist) and Sunil Chhetri (all-time top goalscorer of Indian National Football team), 'Fit Hai to Hit Hai India' program was launched by Ramesh Pokhriyal (Union Minister of Human Resource Development) and Kiren Rijiju (Union Minister of State I/C for Youth Affairs and Sports).
- As a part of the Fit India Campaign, the 'Fit Hai to Hit Hai India' program will be organized.
- The Union HRD Minister stated at the launch event that in various programs under the Fit India Campaign, to date a total of 13,868 CBSE affiliated schools from across the country have participated out of which 11,682 have also been awarded the Fit India flag. He further added that now at the time of a global pandemic it is equally important for the students to stay fit in order to fight the COVID-19 disease.

- The objective of the program is to inspire and motivate the school children about the importance and need to stay fit during this pandemic. For this, Talk sessions named Fit India Talks will be organized.

16. Education

16.1. National Education Policy, 2020

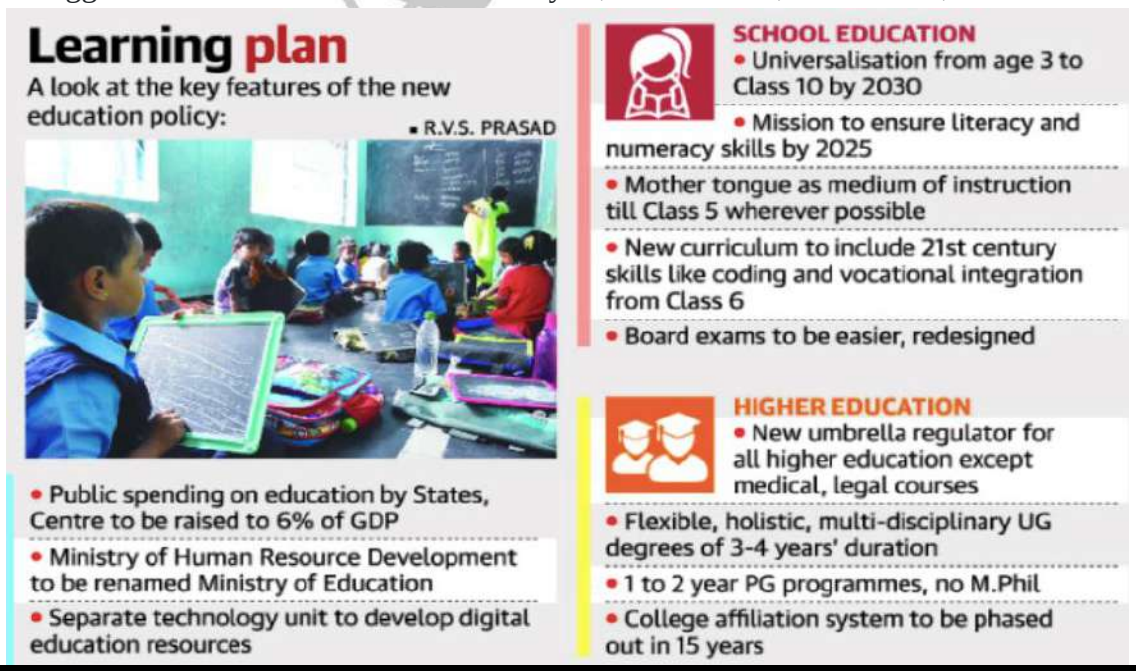
Context: The union cabinet recently approved the new National Education Policy, making way for large scale, transformational reforms in both school and higher education sectors.

More Details :

- The policy marks the fourth major policy initiative in education since Independence and is the first education policy of the 21st century and replaces the 34-year-old National Policy on Education (NPE), 1986.
- The policy is based on the foundational pillars of Access, Equity, Quality, Affordability, and Accountability.
- It is also aligned to the 2030 Agenda for Sustainable Development as giving quality education is SDG number 4.

Background

- In May 2016, 'Committee for Evolution of the New Education Policy' under the Chairmanship of Shri T.S.R. Subramanian**,** Former Cabinet Secretary, submitted its report.
    - Based on this report, the Ministry prepared 'Some Inputs for the Draft National Education Policy, 2016'.
- In June 2017 a 'Committee for the Draft National Education Policy' was constituted under the Chairmanship of Dr. K. Kasturirangan, which submitted the Draft National Education Policy, 2019
- This draft was made public and opened for feedback after the Lok Sabha election in May 2019.
- NEP 2020 has been formulated after the **process of consultation** that involved nearly over 2 lakh suggestions from 2.5 lakh Gram Panchayats, 6600 Blocks, 6000 ULBs, 676 Districts.


Learning plan
A look at the key features of the new education policy:
• R.V.S. PRASAD
• Public spending on education by States, Centre to be raised to 6% of GDP
• Ministry of Human Resource Development to be renamed Ministry of Education
• Separate technology unit to develop digital education resources
SCHOOL EDUCATION
• Universalisation from age 3 to Class 10 by 2030
• Mission to ensure literacy and numeracy skills by 2025
• Mother tongue as medium of instruction till Class 5 wherever possible
• New curriculum to include 21st century skills like coding and vocational integration from Class 6
• Board exams to be easier, redesigned
HIGHER EDUCATION
• New umbrella regulator for all higher education except medical, legal courses
• Flexible, holistic, multi-disciplinary UG degrees of 3-4 years' duration
• 1 to 2 year PG programmes, no M.Phil
• College affiliation system to be phased out in 15 years

Replacing 10+2 structure of school curricula with a 5+3+3+4 format:

- The 10+2 system will be divided into 5+3+3+4 format.
- This means the first five years of school will comprise of the foundation stage. The next three years will be divided into a preparatory stage from classes 3 to 5. Later, there will be three years of middle stage (classes 6 to 8), and four years of secondary stage (classes 9 to 12).
- Schools will not have any rigid formation of streams of arts, commerce, science, etc. and students can take up whichever courses they want.
- A new curricular framework is to be introduced, including the pre-school and Anganwadi years.
- A National Mission on Foundational Literacy and Numeracy will ensure basic skills at the Class 3 level by 2025.
- Students will begin classes on coding as well as vocational activities from Class 6 onwards.
- Indian knowledge systems, including tribal and indigenous knowledge, will be incorporated into the curriculum in an accurate and scientific manner.

Language issues:

- Language issues caused the most outrage, as the original draft called for mandatory teaching of Hindi to all school students. That clause was subsequently dropped.
- There will be greater flexibility in the three-language formula, and no language will be imposed on any State. The three languages learned by children will be the choices of States, regions, and students.
- Sanskrit will be offered as an option at all levels of school and higher education.
- Other classical languages will also be available, possibly as online modules, while foreign languages will be offered at the secondary level.
- The medium of instruction till at least Grade 5, and preferably till Grade 8 and beyond will be in Home Language/Mother tongue/Regional Language.

Inclusive Education:

- Inclusion is a theme of the Policy beyond technology as well.
- As per the Ministry, under NEP, efforts will be made to incentivise the merit of students belonging to SC, ST, OBC, and other SEDGs.
- Private Higher Educational Institutions will be encouraged to offer larger numbers of scholarships to their students.
- The National Scholarship Portal will be expanded to support, foster, and track the progress of students receiving scholarships.
- Regions such as aspirational districts, which have large numbers of students facing economic, social or caste barriers will be designated as 'Special Educational Zones'.
- Special funds have been earmarked for special education.
- The NEP emphasises universal access to schools, and aims to bring two crore out-of-school children back into the educational mainstream.
- It also aims to double the Gross Enrolment Ratio in higher education, including vocational education, from 26.3% in 2018 to 50% by 2035.

Gender Inclusion Fund

- The Centre will also set up a 'Gender-Inclusion Fund' to build the country's capacity to provide equitable quality education to all girls and transgender students.

- The fund will be available to States to implement priorities determined by the Central government critical for assisting female and transgender children in gaining access to education.

Multi-disciplinary approach:

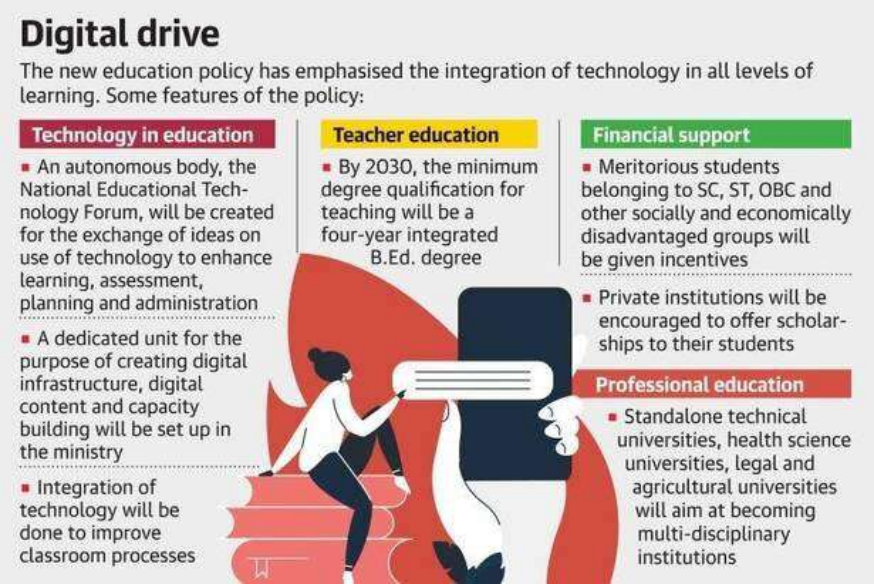
- Standalone Higher Education Institutes and professional education institutes will be evolved into multi-disciplinary institutes.
- By 2049, all higher education institutions (HEIs) should aim to become multidisciplinary institutions, each of which will aim to have 3,000 or more students, as per the data shared by MHRD.
- Further, by 2030, the aim is to set up at least one large multidisciplinary HEI in or near every district.

Exit options in degree courses:

- The undergraduate degree, which is of 3 to 4-year duration will have multiple exit options.
    - After completing one year, if a student decides to drop out, s/he will get a certificate in a discipline or field including vocational and professional areas.
    - On dropping out after two and three years, students will get a diploma and a Bachelor's degree, respectively.
    - The four-year multidisciplinary Bachelor's program, however, will be the preferred option and will give a degree with research if a student has pursued a project along with it.
- M.Phil. degree would be abolished.
- It would establish a common higher education regulator with fee fixation for both private and public institutions.

Academic Bank of Credit:

- The ABC will digitally store the academic credits earned from various recognized HEIs so that the degrees from an HEI can be awarded taking into account credits earned.
- Currently, a similar programme is being run where a student can opt for a course related to their degree on SWAYAM – online portal by the government, and credits associated with that course will be given to the student and help in their assessment for their degree course also.


Digital drive
The new education policy has emphasised the integration of technology in all levels of learning. Some features of the policy:
Technology in education
An autonomous body, the National Educational Technology Forum, will be created for the exchange of ideas on use of technology to enhance learning, assessment, planning and administration
A dedicated unit for the purpose of creating digital infrastructure, digital content and capacity building will be set up in the ministry
Integration of technology will be done to improve classroom processes
Teacher education
By 2030, the minimum degree qualification for teaching will be a four-year integrated B.Ed. degree
Financial support
Meritorious students belonging to SC, ST, OBC and other socially and economically disadvantaged groups will be given incentives
Private institutions will be encouraged to offer scholarships to their students
Professional education
Standalone technical universities, health science universities, legal and agricultural universities will aim at becoming multi-disciplinary institutions

Teacher Education:

- The minimum degree qualification for teaching will be a 4-year integrated BEd course by 2030 and stringent action will be taken against "substandard" stand-alone teacher education institutions, according to the new National Education Policy (NEP).
- A common National Professional Standards for Teachers (NPST) will be developed by the National Council for Teacher Education by 2022, in consultation with NCERT, SCERTs, teachers and expert organizations from across levels and regions.

- By 2021, a new and comprehensive National Curriculum Framework for Teacher Education will be formulated by the National Council of Teacher Education (NCTE) in consultation with the NCERT.

Technology in Education:

- The policy has proposed the setting up of a National Educational Technology Forum (NETF), a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration, etc., for both school and higher education.
- A dedicated unit for the purpose of creating digital infrastructure, digital content and capacity building will be set up in the ministry.

Education In India

- **Constitutional Provisions:**
  - Part IV of Indian Constitution, Article 45 and Article 39 (f) of Directive Principles of State Policy (DPSP), has a provision for state-funded as well as equitable and accessible education.
  - The 42nd Amendment to the Constitution in 1976 moved education from the State to the Concurrent List.
    - The education policies by the Central government provides a broad direction and state governments are expected to follow it. But it is not mandatory, for instance Tamil Nadu does not follow the three-language formula prescribed by the first education policy in 1968.
  - The 86th Amendment in 2002 made education an enforceable right under Article 21-A.
- **Related Laws:**
  - Right To Education (RTE) Act, 2009 aims to provide primary education to all children aged 6 to 14 years and enforces education as a Fundamental Right.
    - It also mandates 25% reservation for disadvantaged sections of the society where disadvantaged groups
- **Government Initiatives:**
  - Sarva Shiksha Abhiyan, Mid Day Meal Scheme, Navodaya Vidyalayas (NVS schools), Kendriya Vidyalayas (KV schools) and use of IT in education are a result of the NEP of 1986.

17. Miscellaneous

17.1. Plasma Bank for COVID-19 Patients

- A Plasma Bank for the treatment of COVID-19 positive patients has been established at the oldest medical college of India- Kolkata Medical College and Hospital. The Plasma Bank has been set up the Immunohematogy department of the Kolkata Medical College and Hospital by the West Bengal State Health Department.
- It is the second such initiative in the country. A plasma bank had been recently set up at Institute of Liver and Biliary Sciences (ILBS) in Delhi.
- COVID-19 patients are being given plasma therapy in some hospitals. It involves taking antibodies from the blood of a person who has recovered from COVID-19 and transfusing those into a coronavirus infected patient to help kick-start the immune system to fight the infection.

17.2. India's first social media app

- Soon after the government banned all those 59 Chinese apps, India's first social media app was launched by Vice President, Venkaiah Naidu.
- Name of the App is "Elyments".
- This 'Super app' combines multiple features in a single platform and offers tools such as video and voice calls, instant messaging as well as social networking.
- This app is available in 8 languages, including Tamil, Telugu, Kannada, and English.

17.3. Six strategic bridges close to LoC, IB inaugurated

- Adding fillip to the connectivity in sensitive border areas close to the International Border (IB) and the Line of Control (LoC) in Jammu and Kashmir, defence minister Rajnath Singh inaugurated six major bridges through video conferencing.
- These bridges of strategic importance were completed by the Border Roads Organisation (BRO).
- The two bridges on the Tarnah Nallah in Kathua District and four bridges located on Akhnoor-Pallanwala road in Akhnoor/Jammu district have spans ranging from 30 to 300 metres and were constructed at a total cost of Rs 43 crores.
- These bridges constructed by Project Sampark of the BRO.

17.4. Swabhiman Anchal

- Recently, a passenger bus service was started for the first time after India's Independence in Swabhiman Anchal region (formerly known as the cut-off area) in Odisha's Malkangiri district.
- The bus service was able to start after the construction of the Gurupriya Bridge in 2018, which connected Swabhiman Anchal with the rest of the State.
- Till now, motor launches and boats were used to be the only mode of communication to reach ferry points and from there people were taking country boats to reach villages.
- People were even using horses to travel in the remote parts of Swabhiman Anchal.
- Swabhiman Anchal is situated along the Odisha-Andhra Pradesh border, and had long been a stronghold of left-wing extremists.

- The region is covered by water from three sides and another side by inhospitable terrain.
- Balimela reservoir is also situated in the region.

17.5. Guntur Chilli

Context:

For the first time, the Indian Railways loads Special Parcel Train to Bangladesh carrying Dry Chillies from Reddipalem in Guntur District of Andhra Pradesh state.

About Guntur Chillies:

- Guntur and its surrounding areas in the state of Andhra Pradesh are well known for chillies cultivation.
- The quality of this farm produce is internationally renowned for its uniqueness in taste and brand.
- Guntur chillies are exported to Canada, Asia and Europe.
- Guntur district is the main producer and exporter of most varieties of chillies and chilli powder from India to countries like Sri Lanka, Bangladesh, Middle East, South Korea, U.K. and USA & Latin America.
- Chillies have various colours and flavours because of the level of Capsaicin in them.
- Guntur chillies form an important part of curries and various popular dishes of Andhra Pradesh.
- The main trading place for Guntur chilli is called Guntur Mirchi Yard which is also Asia's largest dried red chilli market.
- There are various types of Guntur chilli.
- The **Guntur Sannam Chilli** is a variety which has the Geographical Indication (GI) Tag.
    - Guntur Sannam chilli requires a warm and humid climate for its growth and dry weather during the period of maturation.
    - Sannam chilli belongs to the variety of ***Capsicum annuum***.
    - This chilli has a thick skin and it is generally long (5 – 15 cm in length).
- Globally, India stands first in the production of chilli and in India, Andhra Pradesh leads in its production. Andhra Pradesh alone commands 46% of the chilli production in India.

17.6. Hardly smart about urban health care

Smart Cities Mission:

- The **'Smart Cities Mission'** sought to make 100 selected cities "smart", primarily through an **"Area-Based Development" model** under which a portion of the city would be upgraded by retrofitting or redevelopment.
- The 'Smart Cities Mission' involves the **creation of Special Purpose Vehicles** for the implementation of the projects under the mission.

Public health:

- Public health is an essential local government function in India's constitutional scheme. As per the **12th Schedule of the Constitution, introduced by the 74th Amendment**, "public health" is one of the 18 functions that are to be devolved to the municipalities.

17.7. Indian Railways

Context:

Indian Railways on mission mode to become a **"Green Railway"** by 2030 (Net Zero Carbon Emission).

Details:

- The Ministry of Railways has taken a number of major initiatives towards mitigation of global warming and combating climate change.
- Railway Electrification, improving the energy efficiency of locomotives & trains and fixed installations, green certification for installations/stations, fitting bio-toilets in coaches and switching to renewable sources of energy are parts of its strategy of achieving net zero carbon emission.
- The Railways has completed the **electrification** of more than 40000 route km (RKM). Further electrification of lines has also been commissioned.
- It has also taken a number of initiatives to promote **solar energy**.
    - The Railways is harnessing solar energy through rooftop solar panels, on top of buildings including stations.
    - The Railways is also trying to produce power from land-based solar installations for running trains.
- It has also commissioned wind-based power plants.
- The Railways has started other green initiatives like 100 percent LED illumination of buildings and stations.
- It has acquired Green Certifications for many of its production units, workshops, diesel sheds and stores depot, railway stations and campuses.
- In the field of green initiatives, a total of 69,000 coaches have been fitted with more than 2,44,000 bio-toilets.

17.8. Vallarpadam Terminal

- Recently, the Ministry of Shipping reviewed the development of the country's first trans-shipment hub - Kochi International Container Trans-shipment Terminal (ICTT).
- ICTT is locally known as the Vallarpadam Terminal.

Trans-shipment Hub:

- It is a terminal at a port which handles containers, stores them temporarily and transfers them to other ships for the onward destination.
- It basically acts as a switching point for cargo carried by deep-sea vessels operating on trans-continental trade routes.

Vallarpadam Terminal:

- It is a part of the Cochin Port in Kochi, Kerala. It is located on Vallarpadam Island.
- It was built with an investment of about Rs. 3,200 crore, shared by the government and the Dubai-government-owned entity (Dubai Ports World).
- It was opened in February 2011 and can handle cargo up to one million TEUs (Twenty-foot equivalent units) per annum.

- It is proposed to be a leading trans-shipment hub of South Asia. This is because of its:
    - Proximity to International sea routes.
    - Location with respect to all Indian feeder (secondary/smaller) ports.
    - Proximity to key hinterland markets of India.
    - Large infrastructure to manage large ships and capacity to scale it up as per requirement.

Expected Benefits:

- It will cut India's dependence on neighboring hub ports such as Colombo in Sri Lanka, Jebel Ali in Dubai and Port Klang in Malaysia to send and receive container cargo, thus saving time and cost for exporters and importers.
- It is in line with the Prime Minister's vision of Atmanirbhar Bharat. It will ensure that Indian cargo trans-ship through an Indian Port.
- Further, the Indian ocean is one of the most critical maritime transportation links in the world.
- It will facilitate the setting up of port based industries and their allied facilities such as Container Freight Station, Island Container Depots, etc. in Kerala which will generate additional employment opportunities.

17.9. Reconstitution of Central Zoo Authority

- Recently, the Ministry of Environment, Forest and Climate Change has reconstituted the Central Zoo Authority (CZA) to include an expert from the School of Planning and Architecture, Delhi, and a molecular biologist.
- The CZA is a statutory body under the Ministry of Environment, Forest and Climate Change. It was constituted in 1992 under the Wildlife (Protection) Act, 1972.
- **Members:** It is chaired by the Environment Minister and has 10 members and a member-secretary.
- **Objective:** The main objective of the authority is to complement and strengthen the national effort in conservation of rich biodiversity.
- **Functioning:** The authority provides recognition to zoos and is also tasked with regulating the zoos across the country.
- It lays down guidelines and prescribes rules under which animals may be transferred among zoos nationally and internationally.
- It coordinates and implements programmes on capacity building of zoo personnel, planned breeding programmes and ex-situ research.

17.10.Central Consumer Protection Authority

- The Consumer Protection Act, 2019 has come into force from 20th July, 2020. As provided in section 10 of the Act, the Central Consumer Protection Authority (CCPA) has been established.

About the Central Consumer Protection Authority (CCPA):

- **The objective of the CCPA is to promote, protect and enforce the rights of consumers as a class.**

- It will be empowered to:
    - Conduct investigations into violation of consumer rights
    - Institute complaints/prosecution
        - It can file complaints of violation of consumer rights or unfair trade practices before the District Consumer Disputes Redressal Commission, State Consumer Disputes Redressal Commission, and the National Consumer Disputes Redressal Commission.
    - Order recall of unsafe goods and services
    - Order discontinuation of unfair trade practices and misleading advertisements
    - Impose penalties on manufacturers/endorsers/publishers of misleading advertisements
- The CCPA will be a national-level regulator with its headquarters in Delhi.

17.11.International Thermonuclear Experimental Reactor (ITER) Assembly

- Recently, the International Thermonuclear Experimental Reactor (ITER) celebrated the start of Assembly of the ITER Tokamak at Saint-Paul-Lez-Durance, France.

Significance of the Event:

- The Celebration was hosted virtually by the French President and all ITER member countries participated either in person, or electronically through remote mode.
- India also participated in the celebrations and considered the global participation of scientists to project as a perfect illustration of the age-old Indian belief - Vasudhaiva Kutumbakam.
- Vasudhaiva Kutumbakam is a Sanskrit phrase which means 'The World is One Family'.

India's Contribution:

- India also mentioned about its fair share in terms of its in-kind contributions, viz., the cryostat, cryogenic and cryo-distribution systems, auxiliary heating devices, multi megawatt power supplies, etc.
- ITER cryostat is manufactured by India (Larsen and Tourbo). Cryostat is a chamber that can maintain very low temperatures.
- It is the largest stainless steel high-vacuum pressure chamber ever built (16,000 m3) providing the high vacuum, ultra cool environment for the ITER vacuum vessel and the superconducting magnets.
- The target for the first plasma is 2025. At extreme temperatures, electrons are separated from nuclei and a gas becomes a plasma—an ionized state of matter similar to a gas.
- European Union (EU) is responsible for the largest portion of construction costs (45.6%); the remainder is shared equally by China, Japan, South Korea, Russia, USA including India (9.1% each).

17.12.MoU between India and Zimbabwe

Context:

Cabinet approves MoU between India and Zimbabwe on Cooperation in the field of Traditional System of Medicine and Homeopathy.

Details:

- The MoU, signed in 2018, will provide a framework for cooperation between the two countries for the promotion of traditional systems of medicine and homoeopathy.
- Areas of cooperation include:
    - Promotion in the regulation of teaching, practice, drugs, and drugless therapies.
    - Supply of all medicine materials and documents necessary for demonstration and reference.
    - Exchange of experts for the training of practitioners, paramedics, scientists, teaching professionals and students.
    - Mutual recognition of pharmacopoeias and formularies.
    - Mutual recognition of educational qualifications, of traditional preparations, permission to practice, etc.

17.13.Mausam App

Context:

- Ministry of Earth Sciences launches Mobile App "Mausam" for India Meteorological Department on its Foundation Day Celebrations.

Details:

- The Mausam App is designed to communicate the weather information and forecasts in a lucid manner without technical jargons.
- Users can access observed weather, forecasts, radar images and be proactively warned of impending weather events.

Services offered under the App:

- Current weather – Current temperature, humidity, wind speed and direction for 200 cities updated 8 times a day, information on sunrise/sunset and moonrise/moonset.
- Nowcast – Three hourly warnings of localized weather phenomena and their intensity issued for about 800 stations, and districts of India.
- City Forecast – Past 24 hours and 7-day forecast of weather conditions around 450 cities in India.
- Warnings – Alerts issued twice a day for all districts for the next five days in colour code (Red, Orange and Yellow) to warn citizens of approaching dangerous weather.
- Radar products – Latest station-wise radar products updated every 10 minutes.

17.14.Rewa Solar Project

Context:

- Recently, the Prime Minister has inaugurated the 750 MW (Mega Watt) solar project set up in Rewa, Madhya Pradesh.
- It is in line with India's commitment to attain the target of 175 GW of installed renewable energy capacity by 2022 including 100 GW of solar installed capacity.

Features:

- It is Asia's largest solar power project.
- It comprises three solar generating units of 250 MW each located on a 500 hectare of land situated inside a solar park (total area 1500 hectare).

Solar Park:

- It was developed by the Rewa Ultra Mega Solar Limited (RUMSL), a Joint Venture Company of Madhya Pradesh UrjaVikas Nigam Limited (MPUVN), and Solar Energy Corporation of India (SECI), a Central Public Sector Undertaking.
- Central Financial Assistance of Rs. 138 crore was provided to the RUMSL for development of the Park.

17.15.Andhra Pradesh announces Renewable Energy Export Policy, 2020

- The State Government of Andhra Pradesh recently announced the Renewable Energy Export Policy, 2020. The policy permits sale of power to other states of India.
- The policy is to be implemented by NREDCAP (New and Renewable Energy Development Corporation of AP Limited). The NREDCAP is to allocate renewable energy resource potentials to developers based on first come first serve.
- The policy will facilitate establishment of wind, solar and solar-wind hybrid projects. It will help in increasing the energy capacity of the state to 120 GW.
- The energy generated through the projects of the policy are to be exported to other states.
- The incentives provided under the policy will seek to establish equipment manufacturing, ancillary facilities related to renewable energy. The developers are to get an exemption from the payment of electricity duty for 10 years.
- The Andhra Pradesh Government is to convert and use from Agriculture use to Non-Agriculture use. The projects are to be exempted from obtaining No Objection Certificate from the State Pollution Control Board.

17.16.A&N Islands: NABARD launches development projects

- In Andaman and Nicobar Islands, NABARD has launched development projects worth rupees 44 lakhs in order to strengthen the concept of Atmanirbhar Bharat through rural entrepreneurship.
- It includes the formation and development of Self-Help Groups, SHGs. Skill development of SHGs members will be taken up to promote rural entrepreneurship at micro level.
- NABARD will conduct 385 village-level programmes and provide training to leaders of newly formed SHGs with a sum of more than 10 lakh rupees. Women attached to SHGs in Little Andaman will be trained for Mushroom Cultivation and Bamboo Handicrafts making. A four -month long training programme for tour and travel agents in Swaraj Dweep is also listed in the schedule.

17.17. India to setup its own Cotton Warehouse in Vietnam to boost Exports

- The Cotton Corporation of India is holding surplus stocks of cotton. With the next harvest season approaching, the CCI is trying to boost exports.
- To export the current stocks, India will sign Memorandum of Understanding with Bangladesh to export 1.5 to 2 million bales of cotton. One bale is 170 kilo grams. Also, the CCI will set up its own warehouse in Vietnam to boost cotton exports.
- India has chosen Bangladesh and Vietnam as they have duty-free access to markets of US, Europe, and China. This gives them an edge over Indian Yarn and garment exporters who pay comparatively higher duties.
- Currently India is working under National Textile Policy 2000. The Government of India announced in 2019 that a new Textile Policy, 2020 will be rolled out in mid of 2020. The New

Textile Policy being formulated will focus on technical textiles, manufacturing of apparel and garment, man-made fibre products and exports.

17.18.Unnat Bharat Abhiyan: TRIFED signs MoU with IIT, Delhi

- The TRIFED operating under the Ministry of Tribal Affairs has signed an agreement with IIT Delhi to implement Unnat Bharat Abhiyan.
- The Agreement was signed for the tribal entrepreneurs working under the Van Dhan programme of TRIFED to access 2600+ research works of several institutions that are part of Unnat Bharat Abhiyan. With the new agreement, the tribal forest dwellers engaged in Minor Forest Produce will be able to access new processing technologies, mentorship transformational digital systems, product innovation and handholding.
- The IIT-TRIFED partnership will also receive help from VIBHA movement. VIBHA is Vijnana Bharati science movement. The movement creates awareness about significant development of science and technology in India. It will map and reach out to various stake holders to converge with the focus to strengthen Van Dhan Yojana. The movement was founded by the eminent scientists of Indian Institute of Science, IISc.

17.19.Three new high-throughput labs of ICMR

- PM Modi is to launch three new high-throughput labs of Indian Council of Medical Research (ICMR).
- The Government of India recently adopted Test, Track, and Treat Strategy to detect COVID-19 in its early stages. The 3Ts are to act as the major strategy to contain the virus in the country. In order to achieve this, new high-throughput labs have been launched by ICMR.
- In January 2020, there was only one lab to test COVID-19. The number of COVID-19 testing labs have now been increased to 1,300. This includes the private labs as well. Today, India performs around 3.5 lakh COVID-19 tests in a day.

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